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ECONOMIC CONFLICT AS A REGULATING FORCE IN INTERNATIONAL AFFAIRS

Presidential address delivered at Forty-third Annual Meeting of the American Economic Association, Cleveland, Ohio, December 30, 1930.

Economic conflict of the milder form known as competition was relied upon by the older economists as a sufficient means of social control. Experience has shown that this conclusion was too optimistic but that economic conflict is likely to be less destructive to social relations than are conflicts of a political, ecclesiastical or racial character. At times economic conflicts may be made to serve as substitutes for conflicts of a more dangerous sort.

In international affairs economic conflict, if unhampered by attempts at political control, will likely result in compromises which will obviate military conflicts. The big business and financial leaders of today have learned that war is not to their advantage.

International capitalistic combinations offer a more effective means of controlling the exploitation of limited natural resources than do government controls and are less likely to lead to war. Therefore governmental interference with the international flow of capital is seldom desirable. The policy of *laissez faire* found its earliest application in the field of international trade and is, still, most easily justified in that sphere of action.

To the economist conflict is neither a new nor a strange phenomenon. Very early in human history man learned that he could eat bread only by the sweat of his face, and the lesson thus learned was rephrased by the early economists into the doctrine that labor is the price of all economic goods.

Man's first struggle was with the earth itself which grudgingly yielded him a living; but this earthy contact gave him like Antaeus new strength for the conflict. Man soon discovered, however, that his was not the only species which depended for its existence upon the produce of the soil. Only by an unceasing struggle with other forms of animal life could human beings obtain a portion of the food and other resources which nature dispensed impartially but with a sparing hand. So strenuous and persistent has been this struggle for survival between man and other organisms that a prominent entomologist has only recently declared that it is still uncertain whether in the contest between the human and the insect species it will be man who will survive.

Somewhere in the age-long struggle man discovered that conflict need not always end in the destruction of the defeated party. His own

chances of survival were improved when he compromised with some of his adversaries and even sought their coöperation in waging war on the more unrelenting and destructive of their mutual enemies. Such compromises and alliances were, of course, most likely to take place with human beings themselves, and born of such toleration and alliances came some of our earliest social groupings. Not all groups were formed with economic ends in view; but, whenever mutual aid could be secured by a specialization of functions and a division of labor within the group, a continuation of the tolerant attitude was most likely to result.

Conflict, it is to be noted, did not cease even within the group; but it took on a more creative and less destructive form. Under the name of competition it came to be thought of as a stimulating and constructive force in human society; and among economists by the time of Adam Smith competition was believed to be wholly beneficial. It was thought, indeed, that it might even be relied upon as a sufficient regulator of man's conduct in the world of commerce and industry.

If today we have ceased to accept the naïve argument that competition is wholly a stimulating, never a destroying, force in our economic life, it is not because we do not believe that competition can be made to serve in the stimulating way in which Smith and his followers contended that it would act. When it fails, it is because the competitors do not possess equal strength and foresight and the stronger and more foresighted are likely to insist that their individual interests are those of the group. The weaker members are then obliged to combine in order to restrain competition and prevent it from destroying both itself and them. Such restraints are most frequently obtained by enlisting the support of organizations based on non-economic motives, especially that of the State whose functions are not only political but which usually represents in its governing policy the ethical notions prevailing at the time. It is not, therefore, through a cessation of conflict that unfair economic competition is checked but by bringing into play another form of competition that the equilibrium is restored.

While we may readily admit that economic competition needs at times to be controlled in its own interest, that is, in order to preserve that freedom which is its very foundation stone, it is equally true that economic forces are at times called upon to preserve society from modes of conflict which have their origin in other than economic motives, where the struggle is more harmful and unless checked will completely destroy the weaker contestants. More than once has the economic boycott been resorted to by nations which were weak in armed forces to check the aggressive political ambitions of their more warlike neighbors. Such boycotts may have proved ineffective in restraining for any long time the purchase of the offending commodities; but they have usually pro-

duced sufficient fear among the producers to lead to a clamorous demand that their own government reverse its policy.

The history of mankind has shown that ethnological, political and even ecclesiastical societies are likely, when unchecked, to be more tyrannical in their treatment of their defeated adversaries than are groups formed to carry on the economic struggle. It is seldom that individuals or associations pursuing economic ends push an advantage which they have gained over their competitors to the point of complete destruction. High prices may for a time yield high profits, but they will ultimately destroy purchasing power or call forth substitutes. Low wages may be reluctantly accepted but they do not secure the full productive capacities of the workers. Competition among producers does not often take that cut-throat form which results in the extinction of some of them but is more likely to end in an agreement between, if not a complete merger of, the competitors. The prudent creditor is one who hesitates to force his debtor into bankruptcy.

It is perhaps some dim recognition of the fact that the economic conflict is seldom destructive in its consequences that has led nations, when political or racial antagonisms have produced an *impasse,* to call in the international banker or the business man of large affairs to point a way out of the difficulties. Such men have learned, sometimes by experience, more often by observation, that in competition it is well not to push an advantage too far. They have also perceived that international strife, while it may bring large and quick returns to the war profiteer, seldom brings lasting advantages to the well-established business, especially if that business is in part dependent on the international market as an outlet for its goods.

War, while primarily a military and political conflict, cannot be kept out of the economic arena. Trading with the enemy becomes a disloyal act; the property and the patent rights of enemy aliens are sequestered; blockades interfere with the trade of even neutral nations; *moratoria* are declared which relieve the debtors from the importunities of their creditors, and trade is diverted from its usual channels. Worst of all, the war is likely to leave in its wake impoverished peoples who for years and even decades will be weak and uncertain purchasers of domestic as well as foreign goods. If Adam Smith was right in his belief that merchants and manufacturers have a better knowledge of their own interests than have other classes, we may safely conclude that big business interests, other than the manufacturers of munitions, will be more likely to throw their influence in behalf of international peace than will those persons who have less at stake and who, for that reason, are more likely to give their passions and prejudices free rein. The pecuniary instinct is not one of the noblest of human attributes but it is more subject to

compromise than are some of the other incentives to human conduct. Accordingly, men who are governed by the desire for gain are more likely to find it to their interest to seek some other way out of an economic contest than that which leads to armed conflict. If we may be permitted to parody one of Smith's famous passages we may say: it is not from the benevolence of the business and financial magnates that we expect peace to be maintained but from their regard to their own interest.

In these post-war days when the recollection of the destructiveness of the last war is still fresh in our minds and governments are being urged to leave no stone unturned to prevent a renewal of conflict; when nations are pledging themselves to renounce war as an instrument of international policy; when conferences for naval reduction and for the settlement of reparation difficulties are causing alternating hopes and disappointments in the minds of those who have the will to peace, it is possible that those meetings less heralded whose determinations are often concealed from the public, which the representatives of private business corporations frequently hold to settle such problems as the control over fuels, power and raw materials and the division of the world's markets for certain commodities, are doing more to lay the foundations of international peace than are the more spectacular efforts of our statesmen. In spite of much which has been written in support of the widely-held opinion that economic causes are those most often responsible for war, this view of the matter seems to have been greatly exaggerated and is contrary to that held by the sociologists who have given most attention to the subject of conflict. The struggle to command industrial resources or markets may indeed produce friction among nations and powerfully support other motives for war, but economic differences taken by themselves are more likely to be settled by peaceable means than are international disputes arising from other motives.

It is not the contention of this paper that international economic competition is self-regulating; that it can be relied upon to prevent war through the national self-interests involved, any more than the self-interests of individuals can be expected to check exploitation of the weak by the strong. Some government action will probably always be necessary to check monopolistic price-making by international combinations as it has been required to limit the efforts to create domestic monopolies. But the claim is here made that international competition within the economic sphere is less dangerous and less likely to be destructive than are racial and cultural conflicts. Furthermore, it is claimed that the economic struggle among nations is itself a force which makes for international peace.

It is true that at times certain governments have given their support to the forces of monopoly at work in their own dominions, when such

monopolies are in control of resources which are the exclusive possession of the country in question, and have sought to limit the production or export of the monopolized commodities. In such cases the government is either sharing in the ownership and control of the monopoly, or is endeavoring to obtain revenues by taxation of its profits. Such seems to have been the situation in the Chilean nitrate and iodine export trade, in the German potash industry and in the case of the Japanese camphor monopoly. Similar controls by government, exercised perhaps for more pardonable reasons but with less satisfactory results, have taken place in the marketing of Brazilian coffee and crude rubber from British colonial plantations. But the likelihood of a failure in the case of a government monopoly which is dependent upon the international market is much greater than in the case of that of a private corporation. Both private and government monopolies run the risk of stimulating the search for substitutes for the monopolized commodity; but a government monopoly which undertakes to favor domestic producers over foreign purchasers is bound to create resentment on the part of other governments. In such case the threat of retaliation is often sufficient to prevent unfair discriminations or unreasonably high prices.

Students of international affairs are for the most part agreed that the present-day struggle between nations to secure or retain control over such commodities as petroleum, rubber, copper and certain other minerals is more likely to lead to international conflict than are national efforts to secure markets for manufactured goods. If the chances of war are to be reduced to a minimum, it is evident that some plan must be devised whereby the world's supplies of these present-day necessities can be made available to those producers who can make the best use of them.

Of the nations which have been most insistent in their efforts to have established a free world market for the purchase of the raw materials for manufacture, one is Italy, which has very few of such resources. Another is the United States, which possesses an abundance of many of the most important minerals and basic materials for manufactures but which is, nevertheless, dependent on outside sources for such things as rubber, long-staple cotton, manganese, nickel, chromium, tin ore, raw silk, pulp wood, sisal and potash, all of which are either not produced at all in this country or in quantities insufficient to meet the needs of our manufactures. The plea for an open market for raw materials may seem, therefore, to be peculiarly an American one. Certain foreign nations which have been restricting the export of raw materials found within their dominions have not hesitated to call attention to the apparent inconsistency of the American demand for a free market in which to purchase supplies with our insistence that our own market must be

kept for our own manufacturers. American manufacturers have also been inclined to think that their facilities for mass production and perhaps unusual talents for conducting large-scale industrial operations will give them an advantage in markets outside this country if they can only secure their raw materials without obstacles being placed in their way. However, it is well to remember that the recent activities of the Dutch Shell Oil interests and of the Swedish Match Trust do not lend credence to the notion that the United States has a monopoly of business leadership.

International action of some sort would seem to be called for to bring about a fair distribution of fuels, foodstuffs, power and raw materials; and it is to the growth of power in the League of Nations or in some other centralized authority in international affairs that we must hopefully look for the future exercise of such authoritative control of distribution. At present the League lacks the delegated authority and also the means to make its findings effective and its decisions binding on its own members, to say nothing of those nations outside the League whose support is certainly necessary for any effective international control of natural resources. As long as this situation continues, it seems obvious that little more can be done by the League than to collect and make public, statistical and other information as to the location and approximate extent of these natural resources, how they are being utilized by the nations which hold possession, and what obstacles, if any, exist, to their full development and fair distribution. Something more can be accomplished through the formulation by world economic conferences of the principles which, in the minds of the delegates, should govern the actions of the various nations when they are faced with this problem of the control and distribution of raw materials. Such principles having been formulated and adopted, the League can then urge their ratification by its members in the hope that other than League members will see the justice and wisdom of following the same policy.

Important as is this work of creating standards of conduct among the nations, the process of education, by which the adoption of a universal code of ethics is assured in matters in which national self-interests seem so diverse from the ideals which a consideration of international welfare would establish, is bound to be a slow one. If this is all that we can depend upon to prevent wars arising from economic causes, we may well despair of the attainment of international peace until the arrival of the millenium. We have not had to wait, however, for the growth of a world-power, which shall give force to international agreements covering the exploitation of the natural resources when industrial progress makes necessary their development. Capitalistic enterprises have made their own bargains with the governments within whose dominions lie these

undeveloped resources. National prides and national animosities have hindered but not prevented this exploitation. The need of undeveloped or impoverished nations for revenues and the lack of sufficient capital for the development of their own resources have induced industrially backward nations to make bargains with and grant concessions to private corporations for the purchase or lease of forest, mineral and other lands within the boundaries of which the desired resources are supposed to lie. Railways have been built, mining shafts sunk, oil wells driven and plantations developed when necessary for the development of the resources acquired, and even the native population has shared to some extent in the prosperity brought by outside capital.

Economic conflict arises when other capitalistic enterprises, perhaps under the control of other nations, begin to develop similar resources within the same country or perhaps in another part of the world and the competing interests begin to place their products on the world market. Then price wars follow which may be severe while they last, especially if resources have been over-developed and not all the products can be sold at profitable prices. In the old days of the chartered trading companies, the conflict would have taken on a military aspect, for the charters of the different companies would have authorized them to raise armies, build fleets and to wage war, as did the British, Dutch and French East India companies when they struggled to gain control of the accumulated wealth of the Indies. But in the present era the industrial and trading corporations do not possess the authority or the resources to wage war. They are now accustomed to look to the governments of their own countries to protect their interests. However, it is just this combination of private and political agencies for the purpose of acquiring or retaining control of natural resources and markets in regions where foreign capital is engaged in the exploitation of such resources which presents the greatest possibilities of war. The diplomatic efforts of our own government to prevent other than American capitalists from participation in the work of developing the natural resources of countries in the Caribbean area have been especially disturbing in their effects on the creation of a feeling of international good will and have made our professions of a desire to see the open-door policy maintained elsewhere seem insincere. It is a fair question whether a hands-off policy on the part of governments which are sincere in their claims that they are not pursuing imperialistic policies, and a limitation of their interference to a dignified but strongly-worded protest against unwarranted attacks made on their nationals who have invested their capital abroad would not in the end create a better international feeling and afford more protection to capital than do naval demonstrations or the threats of military interference.

War is a costly and uncertain means of retaining control of economic resources in distant lands. A more effective means is that of international capitalistic combination. There are few countries which actually exclude foreign capital from participation in domestic enterprises although some countries forbid alien ownership of land or impose special restriction upon the exploitation of their natural resources. The laws which seek to control international monopolies seldom make any distinction between national and international combinations of capital. Hence it has become increasingly popular, especially since the World War, for international combinations to be formed to secure concessions for the development of industrial resources when large capital investments are required. If, as usually happens, the capital investments in such combinations come from several or many countries, such nations have thereby given hostages for the preservation of peace.

There is neither time nor need in this paper to give a description of these international combinations or even to recite their names. Most of us know in at least a general way of the European iron and steel cartels, of the combinations which have been formed in the potash, fixed nitrogen, dye and artificial silk industries, of the Swedish-American match trust, of the agreements or attempted agreements in the oil, sugar, rubber and copper industries. Some of these agreements or combinations have been formed to prevent over-production or to stabilize prices, it is true; but the point here emphasized is that every one of these combinations, agreements or pooling arrangements marks a shifting of conflict from the political to the economic sphere and, to the extent to which this takes place, lessens the likelihood of war between the nations.

Generally speaking, it may be said that capital knows neither national nor race distinctions. Given equal security, it works as willingly for Jew as for Gentile, for Catholic as for Protestant, for the yellow race as for the Caucasian. Political governments having assumed certain attitudes or made certain pronouncements find it very difficult to yield the positions thus taken. The national pride is at stake and statesmen and diplomats are hard put to it to find new formulas which seem to adhere to the old attitudes while in reality they adopt new ones. But economic statesmen have no such embarrassments. Economic life is by its very nature subject to change. New forces make their appearance which call for new methods of solving commercial and industrial problems. Policies which for a time have succeeded but which have lost vigor are sacrificed as quickly and as ruthlessly as are old machines or old stocks of goods. For this reason it will usually be found to be the part of wisdom for governments to interfere as little as possible with the international flow of capital and with the financial and industrial ar-

rangements which are made for its investment and management except to protect their citizens against monopolistic price policies.

Industrial leaders are at times unable to solve the problems which arise from excessive competition, as we know from recent failures to agree on a policy of restricted production by the oil, steel, sugar, and rubber interests; but in these cases competition is always at work to bring about an agreement later when the failure to agree means continued overproduction and unprofitable prices.

It must not be forgotten that the policy of *laissez-faire* was first announced and subsequently developed in the field of international trade and while the intervening years have witnessed many departures from it by the nations of the world, economists in general have continued to give it their support within this sphere of action. Attacks upon the principle have for the most part been made when its extreme advocates have sought to justify it as a regulating force in the struggle between labor and capital or that between producer and consumer. In the field of international economics the struggle is not likely to be less intense, but it will be short-lived; and it may well serve as a satisfactory substitute for international conflicts of a more sanguinary nature.

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THE GROWTH IN THE RELATIVE IMPORTANCE OF THE LARGE CORPORATION IN AMERICAN ECONOMIC LIFE[1]

Very large corporations with gross assets over $80,000,000 occupy an increasingly dominant position. Estimates indicate that this class controls 80 per cent of assets of corporations having stocks regularly traded on the New York Stock Exchange and that the 200 largest non-financial corporations in 1927 controlled over 45 per cent of the assets of all non-financial corporations, received over 40 per cent of corporate income, controlled over 35 per cent of all business wealth and between 15 and 25 per cent of national wealth. Between 1909 and 1927 the assets of the 200 largest increased more than twice as fast as the assets of other non-financial corporations. They reinvested a larger proportion of their earnings, secured a larger proportion of new capital in the open market and increased in size through mergers. If recent rates of growth were to continue, 80 per cent of non-financial corporate wealth would be in the hands of 200 corporations by 1950.

The huge corporation has come to be a commonplace in American economic life. There are few major industries which cannot boast of at least one corporation with assets over a hundred million dollars. Six industries can boast of one or more "billion dollar" companies. A merger creating such a billion dollar concern results in little public discussion. The individual has almost daily contact with one of these great companies. If he is not actually employed by one of them he at least uses the telephone, rides in the railway, drives an automobile, buys gasoline. And it is extremely difficult to do any of these, as well as countless other things, without dealing directly or indirectly with a huge corporation.

In spite of the general familiarity with individual large corporations, there has been little exact information available to indicate the extent to which the large corporations as a group have come to dominate industry. We know that particular corporations have grown with amazing rapidity but others have declined in size. Industry as a whole has grown. Have the large corporations as a group kept pace? Have they increased even more rapidly? Are they coming to absorb a larger proportion of industry? Shall we regard them, not, as in the past, in the light of monopoly, combination, and the trust problem, but as forms of enterprise through which most of the economic activity of the future will be carried on?

It is the purpose of the present article to examine the large corporations in the light of these questions and quite apart from any trade restraining influence which they may have; to present a picture of the extent to which they pervade industry today; and in particular to furnish evidence that the large corporations are already so important and

[1] The following study is one outgrowth of a project in combined legal and economic research conducted at the Columbia Law School under the auspices of the Columbia Social Science Research Council. Certain important conclusions have been based on income statistics for 1927 or prior years. After the material was in type the statistics of income for 1928 became available. They clearly support the conclusions based on the earlier years. Where relevant they have been attached.

are so rapidly increasing in importance that if this growth continues at its present rate, most of the industrial wealth and activity of the country will soon be in the hands of a few huge units.

Before measuring the importance of the large corporation, it is necessary to select a measure of size. For this purpose the gross assets[2] controlled by a corporation have been employed, though, where possible, the results obtained have been checked by the use of a second measure of size—net earnings.[3] Other measures could undoubtedly be used with equal justification, but the available materials allow greater accuracy with the two chosen.

It should be noted that both these measures are roughly measures of wealth, though wealth would be differently defined in each case. While accounting practice varies widely with different companies and with the same company at different times as to the mode of determining gross assets and net income, the major differences in accounting presumably cancel out where one large group of companies is compared with another large group. Gross assets are then roughly proportional to wealth based on its depreciated cost. Net income, on the other hand, is roughly proportional to the market value of these properties since market value is based primarily upon income-producing capacity.[4] If we chose to base the definition of wealth not on cost but on market value, net income would then be roughly proportional to wealth. Both definitions of wealth are widely current, and no effort is being made here to choose between them. It is sufficient to point out that if groups of corporations are graded in size by gross assets or by net income, they will be grouped roughly according to wealth.

In addition to a measure of size, it is necessary to have in mind what lies behind the concept "large corporation." A company having assets of a million dollars would be considered large by many people. In 1927 (the most recent year for which income tax data have been published) two-thirds of all the corporations reporting net income earned less than $5,000.[5] The average non-financial corporation in

[2] Gross assets less depreciation. In some balance sheets depreciation is subtracted from assets and in others it is included as a liability. Both practices are legitimate, but the latter results in a larger figure for gross assets. An adjustment has, therefore, been made where necessary to obtain gross assets exclusive of depreciation.

[3] Statutory net income as compiled by the Treasury Department. This consists of the untaxed net income derived by a corporation directly from its business operations.

[4] This takes no account of the wealth represented on the liability side of the balance sheet by bonds, notes, etc. The tax data used in this study do not make possibie the inclusion of the income from this wealth. If, for each group of corporations compared, the interest paid on borrowings were proportional to net income, then the latter would be proportional to wealth. To the extent that interest paid is not proportional to income, the latter would be inaccurate as a measure.

[5] *Statistics of Income, 1927,* p. 19.

that year had an income of only $22,000[6] and gross assets of but $570,000.[7] In comparison with the great modern corporations, these median or average corporations are pygmies. Based on assets, the American Telephone and Telegraph Company would be equivalent to over 6,000 average sized corporations; the United States Steel Corporation to over 4,000; the Pennsylvania Railroad (exclusive of the Pennroad Corporation) to over 4,000. A hundred million dollar company would be equivalent in assets to nearly 200 average corporations. If, then, we restrict our study of the large corporations to those with 80 to 100 million assets or more, it is apparent that we will be dealing only with super-corporations, with corporations far separated, at least in size, from the average, many of them so large as to be almost beyond imagination. It is with such huge corporations that we have to deal.

The study is further restricted to non-financial corporations. The inclusion of banks, insurance companies, etc., would involve considerable duplications, since an important part of their assets are composed of securities of other companies. On the other hand, all organizations such as Massachusetts trusts, which are classed as corporations for income tax purposes, are included.

In seeking to present a picture of the relative position of these large corporations, four economic areas will be examined: (1) the New York stock market; (2) all corporate wealth; (3) all business wealth; and (4) the national wealth.

The Large Corporation in Relation to the New York Stock Market

In the New York stock market there can be no question of the dominant position of the large corporation. Taking the list of stocks published weekly by the *Commercial and Financial Chronicle* and covering all but the most inactive stocks traded on the New York Stock Exchange in a normal week, 130 out of the 573 independent American corporations represented can be classed as huge companies, each reporting assets of over one hundred million dollars.[8] These 130 com-

[6] *Ibid.*, pp. 16 and 17. Net income of all non-financial corporations reporting net income divided by total number of non-financial corporation tax returns. If the net income minus net deficit of all such corporations had been divided by the number of corporations, the average would have been $16,000. If the net income of all corporations reporting net incomes had been divided by the number of corporations reporting net income, the average would have been $41,000.

[7] *Ibid.*, pp. 371 and 372.

[8] The stocks of 678 corporations were included in the list published by the *Commercial and Financial Chronicle* in the issue selected, that of the typical week of March 9, 1929. Of these 76 were subsidiaries of other corporations on the list, 21 were foreign corporations and 8 were financial corporations. When a corporation listed on the exchange was a subsidiary of a corporation not listed, the parent was

panies controlled more than 80 per cent of the assets of all the companies represented. In the following table, these corporations are grouped by size showing the total assets held by each group and the per cent which this represents of the assets of all the corporations covered:[9]

Size measured by gross assets	Number of companies	Gross assets held by group	Per cent of total assets
Under $50,000,000	372	$7,325,000,000	10.9
$50–$100,000,000	71	4,950,000,000	7.4
Over $100,000,000	130	54,714,000,000	81.7
Total	573	$66,989,000,000	100.0

Besides showing the overwhelming importance of the huge corporation, this table shows what is perhaps of even greater significance, the relative unimportance of the medium-sized corporation having assets between $50,000,000 and $100,000,000 and as a group controlling less than 8 per cent of the total assets represented. The small corporations—and in this day of industrial giants the reader must not be shocked by the reference to all corporations with assets less than $50,000,000 as small—though numerous, do not hold an important position. It is noteworthy, however, that practically half the corporations included had less than $30,000,000 assets and as a group controlled less than 6 per cent of the total. Table I shows the companies distributed in more detail according to size.

The Large Corporation in Relation to All Corporations as Measured by Assets

While the large corporation bulks so important among corporations listed on the stock exchange, this is no indication that it plays such an important rôle in comparison with all corporations. To discover its

regarded as represented on the exchange. The assets of the listed corporations were obtained in *Moody's Manuals* for 1928 and 1929.

[9] A similar study was made for the independent companies listed on the New York Curb Exchange, using the curb transaction list from the same issue of the *Commercial and Financial Chronicle.* Unfortunately the study was first made for a different purpose which involved only the companies in existence in 1927 and a compilation of assets as of that date. For this reason it does not include many companies which should be added. As the correction would probably not make a radical difference in the set of percentages, the uncorrected results are given below:

Size measured by gross assets	Number of companies	Gross assets held by group	Per cent of total assets
Under $50,000,000	371	$3,731,000,000	24.3
$50–$100,000,000	31	2,308,000,000	15.0
Over $100,000,000	37	9,338,000,000	60.7
Total	439	$15,377,000,000	100.0

TABLE I

SIZE OF CORPORATIONS REPRESENTED BY STOCK LISTED AND ACTIVE ON THE NEW YORK STOCK EXCHANGE[1]

573 independent corporations

Gross assets in million dollars	Number of corporations	Gross assets in million dollars	Number of corporations
Under $10	100	$100–$200	49
$10– 20	115	200– 300	22
20– 30	70	300– 400	18
30– 40	56	400– 500	7
40– 50	31	500– 600	12
50– 60	21	600– 700	4
60– 70	16	700– 800	3
70– 80	17	800– 900	4
80– 90	10	900–1000	
90–100	7	Over 1000	11
Total under $100	443	Grand total	573

[1] Derived from *Commercial and Financial Chronicle*, vol. 128, no. 3324 (March 9, 1929), pp. 1514–1523 and *Moody's Railroad, Public Utility* and *Industrial Manuals* for 1928 and 1929.

importance in this larger field a list was compiled of the two hundred American corporations reported in *Moody's 1928 Industrial, Public Utility*, and *Railroad Manuals* as having the largest gross assets.[10] This list included 45 railroads, 58 public utilities, and 97 industrial companies each with assets of over $85,000,000 at the end of 1927. The combined assets of these two hundred largest non-financial corporations amounted to $67,165,000,000.

This figure represents the gross assets directly controlled by these corporations, except for two partially counterbalancing factors. Examination of the consolidated balance sheets of various companies shows part of these assets to consist of the securities of other corporations. These must be securities either of independent companies or of subsidiaries whose accounts are not consolidated with the accounts of the parent. (It is customary to consolidate only subsidiaries which are controlled by a 95 to 100 per cent stock ownership.) In the former case the gross assets appear greater than are actually controlled. In the latter case they usually appear less than are controlled since as a rule the gross assets of the subsidiary are greater in value than the stock held by the parent. These two factors must in some measure cancel each other. It is difficult to say with certainty which factor

[10] In the 26 cases where a consolidated balance sheet was not given in *Moody's* an estimate was made based on the assets of subsidiaries and the assets of the parent corporation minus its investments in affiliated companies. These estimates, while they cannot be perfectly accurate, are sufficiently so for the present purpose. In two cases, no balance sheet of the parent was given but a very rough estimate of the assets controlled was made, based on the bonds and stocks of the parent company and the assets of certain of its subsidiaries. See Tables IIa to IIe in Appendix.

dominates, but there are many indications that the securities of subsidiaries play the more important rôle. For this reason there appears to be little danger of overestimating the assets controlled by the large companies if the assumption is made that these two items just cancel each other and that, for the group of companies as a whole, the assets reported are exactly equal to the assets controlled.

In order to measure the percentage of all corporate assets which this figure represents, an estimate of the gross assets of all non-financial corporations was derived from income tax figures. In 1927, the gross assets of all non-financial corporations whose balance sheets were tabulated by the Treasury Department amounted to $174,600,000,000.[11] This figure is not, however, immediately comparable with that for the two hundred largest corporations. Two sets of adjustments must be made. First, the balance sheets tabulated do not include all corporations. Ninety-nine and one-half per cent of the corporations reporting net income over $5,000,000 are included and 99 per cent of the corporations reporting a net income between $10,000 and $5,000,000; but only 89 per cent of corporations reporting no income or income less than $10,000 are included.[12] Presumably the companies in the last group whose balance sheets were not tabulated were, for the most part, small and would not appreciably increase the total even if included. It is, therefore, reasonable to assume that 99 per cent of the assets of all corporations are included in the total. On this basis the gross assets of all corporations would have been increased one per cent to $176,400,000,000.

One further correction must be made. An important portion of these assets are represented by the securities of subsidiaries and other corporations whose assets are also included. To make the figure comparable to that of the two hundred corporations, this amount, covering both stocks, bonds, and loans, should be deducted if duplication is to be avoided. Non-financial corporations paid $5,354,800,000 in cash dividends and received from domestic corporations $1,098,600,000 in dividends, thus indicating that they owned approximately 20.5 per cent of the stocks of other corporations.[13] The capital stocks of all non-financial corporations were carried on their own books at $76,200,000,000.[14] Assuming that corporations carry the stocks of other corporations at

[11] Gross assets of all corporations minus the gross assets of financial corporations, *Statistics of Income, 1927*, p. 372. The Treasury Department requires that depreciation should be subtracted from assets.

[12] *Statistics of Income, 1927*, pp. 380 and 383. For each group the number of returns filed and the number of balance sheets compiled were calculated by subtracting the financial corporations from all corporations.

[13] *Statistics of Income, 1927*, pp. 312 and 315. This assumes that the volume of stocks of financial corporations owned by non-financial corporations was negligible.

[14] *Statistics of Income, 1927*, p. 373.

the same value as the issuing corporation (par in many cases), 20.5 per cent of this figure, or $15,600,000,000, would be the amount of duplication in total assets to be subtracted due to the holding of the stocks of one corporation by another.[15]

A similar adjustment must be made for loans to other corporations, either through the purchase of bonds, or, more frequently, by direct loans to subsidiaries. In 1927, non-financial corporations reported the receipt of $768,300,000[16] in interest exclusive of that received from federal, state and municipal bonds. This item included interest on bank deposits, notes, mortgages and corporation bonds. The total cash and bank deposits of non-financial corporations amounted to $7,131,000,000[17] which, at 3 per cent, would yield $214,000,000 of interest, probably a figure larger than was actually received. Assuming it to be correct, however, there would remain $554,300,000 of interest derived from loans to individuals, partnerships and other corporations. Since only financial corporations make a wide practice of loaning to individuals, it seems reasonable to attribute at least three-quarters of this interest, or $415,800,000 to loans to other corporations. Capitalized at 5 per cent[18] this would give a capital sum of $8,300,000,000 as the amount of duplication included in the figure of gross assets as a result of loans to other corporations.

When correction is made for these two factors, the resulting figure for the gross assets of all non-financial corporations, 302,993, in number, is $152,500,000,000. Since the 200 largest non-financial corporations were found to control gross assets of $67,165,000,000, they would appear to control 44 per cent of all non-financial corporate wealth.[19]

In the opinion of the present writer, this is a conservative figure. It seems probable that more nearly half of all corporate assets, excluding those of financial corporations, were controlled by the 200 largest non-financial corporations in 1927.

[15] In many cases, the stocks of other corporations are carried by the owning corporation at a figure higher than that recorded by the issuing corporation, particularly in the case of no par stock where part of the capital realized from the sale of stock has been attributed to "paid in surplus." Only occasionally are stocks carried at a figure below that of the issuing corporation. This tends to minimize the figure for stocks owned by corporations.

[16] Derived from *Statistics of Income, 1927,* pp. 312 and 315.

[17] *Statistics of Income, 1927,* pp. 312 and 315.

[18] Dr. King reports .0568, .0401 and .0533 as the ratios of interest paid to funded debt in 1925 for factories, railroads and electric light and power companies respectively. (*The National Income and Its Purchasing Power,* National Bureau of Economic Research, Inc., New York, 1930, p. 201.) Short term unfunded debt was presumably paid at a lower rate.

[19] The corresponding figure for 1928 is 45.5 per cent. This assumes that 97 per cent of the corporate assets were tabulated. (*Statistics of Income, 1928,* pp. 318, 321 380 and 381.)

The Large Corporation in Relation to All Corporations as Measured by Net Income

A partial check on this figure was obtained by estimating the proportion of the net income of all non-financial corporations which was received by the 200 largest. This estimate was based on the Treasury Department's compilations of the net income of corporations in 1927 as reported for different income groups. Unfortunately for the present purpose, subsidiaries which filed separate income tax returns were tabulated as separate corporations. All corporations, even subsidiaries, were required to file separate returns, except where 95 per cent or more of the stock (or of the voting stock) was held by a parent corporation.[20] Even in such cases they were allowed to file separate returns if they so desired. It is therefore apparent that frequently the net income reported by a corporation did not include all the net income derived from property under its control. For instance, the American Telephone and Telegraph Company was presumably represented in income tax returns as four companies, the parent company with assets over $3,000 million in 1928, the Pacific Telephone and Telegraph Company with assets over $379 million, the New England Telephone and Telegraph Company with $268 million assets and the Mountain States Telephone and Telegraph Company with $80 million assets.[21] Even dividends received from these subsidiaries were not included in the statutory net income of the parent, which, therefore, appears smaller in the income tax compilation than would be warranted by the amount of net income derived from property under its control. Many other large corporations were in the same situation. For this reason the earned income reported by the large companies is frequently less than the earnings of property under their control.

A second factor tending to minimize the apparent importance of the large corporation, is the greater proportion of its income which is paid out as interest and therefore is not included as "statutory net income."

[20] Revenue Act of 1926, Sec. 240 (a), (c) and (d). In case 95 per cent or more of the stock or of the voting stock of each of two or more corporations was owned by "the same interests" the corporations could file a consolidated return and would, therefore, appear as a single corporation in the statistics of income. Such a situation arises so infrequently that it need not be regarded here.

[21] Subsidiaries of the American Telephone and Telegraph Company presumably filing income tax returns separate from parent in 1928, (*i.e.*, less than 95 per cent owned). Derived from *Bell Telephone Securities-Reference Tables and Descriptions, 1929*, published by the Bell Telephone Securities Company, a subsidiary of the American Telephone and Telegraph Company. Figures as of December 31, 1928:

Gross assets in millions	*Name*	*Per cent stock owned by A. T. & T. Co.*
$ 80.1	Mountain States Tel. & Tel. Co.	72.82
268.6	New England Tel. & Tel. Co.	61.98
379.6	Pacific Tel. & Tel. Co.	82.00

TABLE III

GROWTH OF LARGE CORPORATIONS AS MEASURED BY STATUTORY NET INCOME[1]

	Net income of all non-financial corporations (*million dollars*)	Estimated net income of 200 largest non-financial corporations (*million dollars*)	Per cent by largest 200 corporations	**Estimated net income of 800 next largest non-financial corporations (*million dollars*)**	**Per cent by next largest 800 corporations**
1920	$6,899	$2,307	33.4	$1,305	19.0
1921	3,597	1,354	37.6	708	19.6
1922	6,076	1,958	32.2	1,151	19.0
1923	7,453	2,445	32.8	1,386	18.6
1924	6,591	2,378	36.0	1,247	19.0
1925	8,060	2,993	37.1	1,522	18.9
1926	8,337	3,335	40.0	1,564	18.7
1927	7,459	2,865	38.4	1,360	18.2
1928	8,646	3,493	40.4	1,618	18.7
Average 1920–1923	$6,006	$2,015	33.5	$1,137	18.9
Average 1924–1927	$7,611	$2,888	37.9	$1,425	18.7

[1] Derived from *Statistics of Income* for the respective years. Net income of all non-financial corporations equals statutory net income of all corporations reporting net income less that of financial corporations reporting net income. Income for the largest 200 was estimated by taking the net income of all non-financial corporations reporting income over $5,000,000 including nearly 200 companies and adding to this an estimate of the income of additional companies to make the total of 200. In each case the few additional companies were assumed to have a net income of $5,000,000. (If the average income of the added companies had been $4,500,000 it would have lowered the estimate in 1927 only from 38.4 to 38.2 per cent. In other years the change would have been very much less. As in each year there were approximately 800 companies having incomes between $1,000,000 and $5,000,000, it is unlikely that the average income of the few companies necessary to make up the 200 largest would have been below $4,500,000 and was probably closer to $5,000,000. The assumption of the latter figures would not, therefore, lead to appreciable error.)

Income for the next largest 800 was estimated by taking the income of all non-financial corporations reporting statutory net income of over $1,000,000 (approximately 900 corporations in each year) and adding an estimate of the income of additional companies to make a total of 1,000, the extra companies being assumed to have an income of $1,000,000. From the resulting figure the estimated income of the largest 200 was subtracted. (Error due to the probability that the additional companies had an average income of somewhat less than $1,000,000 would be negligible. If the average in 1927 had been $900,000 it would have reduced the percentage only from 18.2 to 18.1. As there were nearly 1,000 corporations having incomes between $500,000 and $1,000,000, the average income of the added companies must have been more nearly $1,000,000 than $900,000. In other years the error would be even less.

It is fairly certain that large companies, particularly railroads and public utilities tend to have a larger indebtedness in proportion to their size than small companies.

Keeping in mind the fact that the income tax figures therefore tend to minimize the importance of the large corporations, just what do they show? In 1927, the two hundred largest non-financial corporations, each with an income over $4,000,000 received 38.4 per cent of the income of all such corporations.[22] If the net income of all subsidiary

[22] The corresponding figure for 1928 is 40.4 per cent. See Table III.

corporations had been included in the net income of parents, and if income had included amounts paid out as interest, it is probable that the two hundred largest would have received well over 40 per cent of the net income of all corporations. This figure would tend to give support to the figure derived on the basis of gross assets.

The income figures also give support to the conclusion that the medium-sized corporation is not a particularly important factor. The 800 non-financial corporations next in size (according to net income) after the largest 200, received only 18.2 per cent of the net income of all corporations. This figure covers all corporations reporting income of over one million dollars and less than four and one half million dollars, income representing assets ranging roughly from 18 to 80 million dollars. If all corporations had filed consolidated income accounts, the 800 corporations would have reported a still smaller proportion of corporate income since that of many important corporations would have been shifted into the higher group and only a slight balancing would come through addition from below.

In contrast to the medium-sized, the small corporation, reporting an income under one million dollars, makes an important showing. Such corporations accounted for 43.4 per cent of all corporate income, due, in large measure, to the sheer weight of numbers among the smallest units. Over 28 per cent of the net income of all corporations was received by the 178,273[23] corporations, each reporting net income of less than $250,000 and in the main, having assets of less than four million dollars. This would seem to indicate that the bulk of corporate wealth was represented either by huge units having assets running into the hundreds of millions or by relatively small corporations having assets under four million dollars.

The Large Corporation in Relation to All Business Wealth

There appears to be no adequate basis for determining the exact relation of corporate wealth to all business wealth. It is possible, however, to make a very rough approximation on the basis of the net income of corporations and the net income of non-corporate business. The statutory net income of all non-financial corporations, exclusive of interest received, amounted in 1927 to $6,886,700,000.[24] The statutory net income of private business can be estimated as follows: All individuals and partnerships having a gross income of $5,000 or over from business or professional activity were required to file tax returns. Since no appreciable business can exist without gross sales of over $5,000, we may be sure that practically all the income from private business is

[23] *Statistics of Income, 1927*, pp. 365 and 369.

[24] Statutory net income of non-financial corporations minus interest other than that from government bonds. Derived from *Statistics of Income, 1927*, pp. 316 and 319.

included. The total income from private business and the professions amounted to \$5,042,500,000.[25] To make this figure comparable to the income of corporations, two deductions must be made: first, the professional income; and, second, an amount to compensate for the direct labor of the proprietors, an item which is included as a cost in the case of the corporations.

No direct division of this income into business and professional can be made, but it can be roughly divided on the basis of figures which have been compiled by the Treasury Department for all returns reporting a net income over \$5,000 and covering over one-third of private business and professional income. Forty per cent[26] of this income was received in the occupations classed as "service" and including all professions, amusements, hotels, etc. The bulk of this amount must have been professional, since, to a very important extent, hotels and amusements are incorporated if at all large. If three-quarters of this amount was professional, then 30 per cent of the sample must have been professional and 70 per cent business income. Applying this percentage[27] to the total private business and professional income would give \$3,500,000,000 as the net income from private business. This income was received by approximately 1,000,000 individuals.[28] How much should be subtracted to account for the labor of the proprietors? No basis is available for estimating this amount, yet the figure used would markedly affect the results. An average labor return per proprietor of \$1,500 would seem to be a conservative estimate. Using this figure, the part of the net income of private business which should properly be attributed to labor would amount to \$1,500,000,000, leaving \$2,000,000,000 as the net income derived from private business comparable to the \$6,886,700,000 business income of non-financial corporations. The total net income of all business would then amount to \$8,886,700,000, 77.5 per cent of which would have been corporate. This probably underestimates by a wide margin the proportion of business wealth controlled by corporations.

We found that the 200 largest corporations controlled roughly 44 per cent of all non-financial corporate wealth. If corporate wealth amounted to only 77.5 per cent of all business wealth, the two hundred

[25] Business \$3,287,400,000 and partnership \$1,755,100,000, *Statistics of Income, 1927,* p. 8.

[26] *Statistics of Income, 1927,* p. 11.

[27] It is probable that a smaller proportion of business and professional income was professional for individuals reporting income under \$5,000 and that a larger proportion of partnership income was professional.

[28] The number of individuals was not reported in 1927 but in 1925, 700,000 individuals (*Statistics of Income, 1925,* p. 8), received the non-service income, while the partnership income amounted to approximately one-half that of individual business. In 1927, the total income from both sources was approximately the same as in 1925.

largest corporations would have controlled 34.2 per cent of all business wealth. This final figure is, at best, only a rough approximation tending to minimize the importance of the large corporation. It is the writer's belief that the two hundred largest corporations controlled between 35 and 45 per cent of all business wealth—excluding from business wealth that of government, agriculture and the professions.

The Large Corporation in Relation to National Wealth

The comparison of the wealth of the 200 largest corporations with the national wealth involves no tedious analysis; but, as all estimates of national wealth can only be very rough, the results are necessarily only approximate. The National Industrial Conference Board has estimated that the national wealth in 1927 amounted to $346,399,000,000;[29] while the gross assets of the 200 largest corporations amounted to only $67,165,000,000[30] or 19.4 per cent of the total wealth of the country. The lower relative importance of the large corporation is due, in the main, to the importance of agricultural land and improvements, residential real estate, personal property, including automobiles, and the large volume of government property.

To recapitulate, the following table gives the results of the foregoing analysis:

PROPORTION OF VARIOUS ECONOMIC AREAS COVERED BY LARGE CORPORATIONS ON OR ABOUT JANUARY 1, 1928

Controlling unit	Actual figure obtained by computation (*per cent*)	Probable limits (*per cent*)
All non-financial corporations		
200 largest (gross assets over $85,000,000)	44.0	45–50
200 largest (net income over $4,500,000)	38.2*	40–50
All non-financial business activity		
200 largest corporations (net income over $4,500,000)	34.1*	35–45
National wealth		
200 largest corporations (gross assets over $85,000,000)	19.4	15–25

* Unadjusted for unconsolidated subsidiaries.

It is apparent from these figures that a very considerable portion of the industrial wealth of the country has been concentrated under the control of a relatively few huge units. There were over 300,000 non-financial corporations in the country in 1927. Yet 200 of these, or less than seven-hundredths of one per cent, control nearly half the corporate wealth.

[29] *The Conference Board Bulletin*, no. 38 (February 25, 1930), p. 303, National Industrial Conference Board, New York.

[30] The error due to including bills receivable in gross assets is not sufficiently large in comparison to the probable error in the estimate of national wealth to warrant making an adjustment.

It must further be remembered that the influence of one of these huge companies extends far beyond the assets under its direct control. Smaller companies which sell to or buy from the larger companies are likely to be influenced by them to a vastly greater extent than by other smaller companies with which they might deal. In many cases the continued prosperity of the smaller company depends on the favor of the larger, and almost inevitably the interests of the latter become the interests of the former. The influence of the larger company on prices is often greatly increased by its mere size, even though it does not begin to approach a monopoly. Its political influence may be tremendous. Therefore, if roughly half of corporate wealth is controlled by two hundred large corporations and half by smaller companies it is fair to assume that very much more than half of industry is dominated by these huge units.

The Growth of Large Corporations as Measured by Gross Assets

Of even more importance than the relative position of the large corporations is the question of their growth. Are they growing more rapidly than other corporations and than national wealth; or, more exactly, are they coming to control a larger proportion of industrial wealth and to receive a larger proportion of industrial income? To answer these questions two studies were made, the first based on gross assets and the second on net income.

For the years 1909, 1919, 1927 and 1928 the gross assets of the 200 largest corporations in the respective years were computed by the method already described for 1927. For each year between 1919 and 1927 a method was employed which gave a figure practically equivalent to the gross assets of the 200 largest corporations.[31] The assets of the 153 identical corporations included in both the 1919 and 1927 list were compiled for each intermediate year. To the resulting figure were added the gross assets of the 47 largest corporations not already included. This gave a total which was almost identical with the figure which would have been obtained if the gross assets of the 200 largest in each year had been compiled. The results of the compilation are given in Table IV, column (a). The assets of the 200 largest corporations increased in the ten years from 1909 to 1919 from $26.0 billion to $43.7 billion, an increase of 68 per cent. In the next ten years from 1919 to 1929 they increased to approximately $78.0 billion,[32] an increase of 78 per cent.

[31] It would be identical if none of the 153 corporations became so small in the intermediate period as not to be included among the 200 largest.

[32] Making a rough extension of trend by adding to the figure for 1928 the average annual gain for the previous three years.

TABLE IV

COMPARISON OF GROWTH OF LARGE CORPORATIONS WITH GROWTH OF ALL CORPORATIONS

	200 largest non-financial corporations		All non-financial corporations	
Year	Gross assets as of December 31[1] (*million dollars*)	Annual rate of growth[2] (*per cent*)	Estimated wealth as of December 31 (*million dollars*)	Annual rate of growth[2] (*per cent*)
	(a)	(b)	(c)	(d)
1909	$26,063		$63,300[3]	
1919	43,718			
1920	48,436	5.1		3.0
1921	47,762		90,507[4]	
1922	49,729	4.1		4.3
1923	51,886	4.2		
1924	54,337	4.7	102,658[5]	
1925	58,317	7.2		4.8
1926	63,404	8.7	112,435[6]	
1927	67,165	5.9	117,693[7]	4.5
1928	73,139	8.6	124,334[8]	5.7
1909–1927		5.3		3.5
1921–1927		6.0		4.4
1924–1927		7.3		4.7

[1] For method of obtaining figures see text.

[2] Where an interval of more than a year intervenes between successive figures, the annual rate of growth is figured on a basis which gives a rate compounded annually.

[3] Estimate obtained by determining the per cent growth in the capital stocks and indebtedness of all non-financial corporations between December 31, 1909 (*Annual Report of the Commissioner of Internal Revenue, 1910*, pp. 69 and 74) and December 31, 1924 (*Statistics of Income, 1925*, pp. 31, 43 and 46). In the latter year the fair value of all capital stocks was used, as it was somewhat larger than total par value even for those corporations reporting par value. This percentage was then applied to the estimated wealth of non-financial corporations on December 31, 1924.

[4] Estimate of non-financial corporate wealth made by the Federal Trade Commission and based upon the capital stock tax returns for approximately December 31, 1921, as compiled by the Treasury Department. (*National Wealth and Income*, Federal Trade Commission, p. 134.) This figure includes real estate, buildings, and equipment as reported and estimates for cash and inventory. Figures cover all corporations.

[5] Figures for real estate, buildings, equipment, cash, and inventory of all non-financial corporations as tabulated by the Treasury Department (*Statistics of Income, 1925*, p. 40) plus an adjustment for wealth of corporations whose balance sheets were not tabulated. Adjustment was made by assuming the wealth of corporations whose assets were not tabulated was in the same proportion to the fair value of their stock as the wealth of corporations tabulated to the fair value of their stock (*ibid.*, p. 31).

[6] Real estate, buildings, etc., of non-financial corporations (*Statistics of Income, 1926*, pp. 360 and 390) adjusted for corporations whose balance sheets were not tabulated. This adjustment was made on the basis of the proportion of balance sheets tabulated in each income class. As over 99 per cent of all but the very smallest corporations appear to have been tabulated, the error in estimation cannot be large (*ibid.*, pp. 356, 358, 360, and 398).

[7] Same basis as (6) (*Statistics of Income, 1927*, pp. 371, 372, 380 and 382).

[8] Same basis as (6), except that 97 per cent of balance sheets were assumed to be tabulated. (*Statistics of Income, 1928*, pp. 32, 380 and 386.)

Table V gives the growth of 153 identical corporations included in the largest 200 in both 1919 and 1927. The assets of 45 identical railroads increased from $18 billion in 1919 to $22 billion in 1927 or 21 per cent; 72 identical industrial corporations increased from $14

billion to $21 billion in the same period, a growth of approximately 50 per cent in eight years. In the public utility field, as is well known, the rate was vastly more rapid. In the same eight years the assets of

TABLE V

GROSS ASSETS OF 153 IDENTICAL CORPORATIONS COMMON TO BOTH 1919 AND 1927 LIST OF 200 LARGEST AMERICAN CORPORATIONS

	Gross assets (*million dollars*)			
On or about December 31	45 railroads	72 industrials	36 public utilities	Total 153 corporations
1919	18,616	14,364	6,107	39,088
1920	20,691	16,263	6,485	43,439
1921	20,328	15,665	6,839	42,834
1922	20,776	16,039	7,850	44,665
1923	20,557	17,249	8,846	46,653
1924	20,986	17,779	9,921	48,688
1925	21,423	19,181	11,627	52,231
1926	22,034	20,645	13,684	56,364
1927	22,619	21,084	15,702	59,405
	(*per cent*)	(*per cent*)	(*per cent*)	(*per cent*)
Increase 1919–1927	21.4	46.7	157.0	52.4
Annual rate of growth[1] 1919–1927	2.3	5.0	12.3	5.3
Annual rate of growth[1] 1924–1927	2.6	5.8	16.5	6.9

[1] Compounded annually.

36 identical utilities grew from $6 billion to $15 billion, or two and one-half times. The more rapid growth of the utilities approximately compensates for the slow growth of the railroads, and the total for the 153 corporations shows a growth from $39 billion to $59 billion, or an increase of practically 50 per cent, the same as that shown by the industrials.

Though the growth of the large corporations shown in these tables is rapid, it is truly significant only if it has been more rapid than that of all industrial wealth. We have already discussed the difficulty in estimating the total industrial wealth for each year; but, as we have seen, more accurate material is available with reference to the wealth of corporations. Here again the distinction between financial and non-financial corporations is necessary, especially in view of the rapid growth of financial companies in more recent years. Where industrial activity is concerned, there is reason to exclude such companies from consideration.

In examining the growth of the 200 largest corporations, the increase in their gross assets has been accepted as a reasonable measure of growth. In measuring the growth of all non-financial corporations, no accurate figures for gross assets are available. For certain years, notably 1921, 1924, 1926, and 1927, a figure which the Federal Trade Commission has designated as "wealth used in corporate business" can, however, be employed as a satisfactory measure of growth. This item includes only cash, inventory, land, buildings and equipment. In each of these years the figure is based upon the data supplied from tax returns, and, to be made comparable for the different years, must be slightly adjusted, as indicated in the footnotes of Table IV. With these adjustments the figures for different years become reasonably comparable and should indicate with a fair degree of accuracy the rate of increase of all corporate wealth exclusive of that of financial corporations. For the year 1909 less satisfactory material was available; but an estimate, involving a very much larger margin of error, was made for that year.[33] The rates of growth of the wealth of all non-financial corporations, the assets of the 200 largest corporations, and, except for 1909, the assets of the 153 corporations which were among the 200 largest both in 1919 and in 1927 are given in Tables IV and V.

These figures indicate that the large corporations as a group are growing very much more rapidly than all corporations. For the period from 1909 to 1927 their annual rate of growth has been 5.3 per cent, while that of all corporations (assuming the estimates are reliable) has amounted to only 3.5 per cent, and for corporations other than the largest 200 only 2.0 per cent. The large corporations would thus appear to be increasing in wealth over 50 per cent faster than all corporations or over two and one-half times as fast as smaller corporations. From 1921 to 1927 the annual rate of growth of the large corporations has been 6.0 per cent compared with 4.4 per cent for all corporations or 3.1 per cent for the smaller companies. From 1924 to 1927, a period of most rapid growth, the annual rates were respectively 7.3 per cent for the large, 4.7 per cent for all, and only 2.3 per cent for corporations other than the largest 200, indicating that the large corporations were growing more than half again as fast as all corporations and three times as fast as smaller corporations.[34]

[33] See note 3, Table IV.

[34] Assuming that the large corporations controlled 45 per cent of all corporate assets in 1927, and increased their assets from 1909 to 1927 at the annual rate of 5.3 per cent as against 3.5 for all corporations, the rate of growth of the smaller corporation representing 55 per cent of corporate wealth would be 2.0 per cent. The annual rate of growth of smaller corporations in the periods 1921-1927 and 1924-1927 were calculated in the same manner.

The Growth of Large Corporations as Measured by Income

To check this study of growth, a second study was made based on the net income of corporations as reported by the Treasury Department. By the same method employed for the year 1927, the statutory net income of the 200 largest non-financial corporations, as reported in income taxes, was calculated for the years from 1920 to 1927. The results are given in Table III. For 1921 the results are misleading as in that year, the year of depression, the net income of all corporations was extremely low, and on purely statistical grounds, one would expect the proportion received by the corporations reporting the largest income to be very much greater than normal. In the remaining years, however, there is no reason to think that the figures are not reasonably comparable for different years. The results run closely parallel to those obtained when the growth in assets was examined. Thus, the years from 1920 to 1923 show no noticeable growth in the proportion of net income received by the 200 largest. From 1924 to 1927, however, there is a very marked increase in the proportion of all corporate income going to the 200 largest, increasing from 33.4 per cent in 1920 to 38.4 per cent in 1927 or from an average of 33.5 in the years 1920-1923 to an average of 37.9 in the years 1924-1927.

This increase in the proportion received by the large companies could theoretically be explained on two grounds other than the actual growth of the large corporations. If they had obtained an increasing rate of return on their capital in comparison with the smaller companies, the increase in the proportion of income could be explained. It could likewise be explained on the ground that for a large number of subsidiary corporations the net income was not consolidated with the parent in the earlier years and was so consolidated in the later years. This latter explanation, however, could at most account for only a very small part of the increase, since approximately the same proportion of all non-financial corporate dividends were reported as received by non-financial corporations in 1927 as in 1922,[35] indicating that subsidiaries were reported as separate corporations to approximately the same extent throughout the period.

It is quite conceivable that an important part of the increase is explained by the greater profitableness of large corporations; but the fact that the change coincides roughly with the change shown for corporate wealth tends to strengthen the conclusion that the large corporations increased both their proportion of the wealth and their proportion of the income of all corporations.

Since it seems fair to assume that an increasing proportion of all

[35] 20.3 per cent in 1922 and 20.5 per cent in 1927. Derived from *Statistics of Income, 1922,* pp. 18, 19 and 22, and *Statistics of Income, 1927,* pp. 312 and 315.

industrial activity has come under corporate sway,[36] the growth of the 200 largest in relation to corporate wealth may be accepted as an indication that they have been absorbing all industrial wealth at a rate at least as rapid.

The Growth of Large Corporations in Relation to Growth of National Wealth

The relative growth of the wealth of the large corporations and the national wealth can be roughly calculated. As we have indicated, national wealth is a difficult concept to define, and all estimates of national wealth must be, at best, approximate; so that too much reliance should not be placed on any comparison of the growth of corporate wealth with that of national wealth. The most recent estimate of national wealth for the period of years under consideration is that made by the National Industrial Conference Board.[37] Between 1922 and 1928, their estimates indicate a growth in national wealth of 12.5 per cent compared with the growth in assets[38] of the 200 largest corporations of 45.6 per cent, or annual rates of growth of 2.0 per cent and 6.3 per cent respectively.[39] While the estimates based on the 1930 census may be considerably higher than those of the Conference Board, the estimates of the latter for 1928 would have to be increased by over 30 per cent to make the rate of increase in the national wealth equal to that of the 200 corporations. There can, therefore, be little doubt that the wealth of the large corporations has been increasing at a very much more rapid rate than the total national wealth.

To summarize the conclusions with relation to growth:

(1) On the basis of gross assets, the large corporations appear to have been growing between two and three times as fast as all other nonfinancial corporations.

(2) This conclusion is supported by the figures of corporate income.

(3) Since an increased proportion of industrial wealth presumably continues to come under corporate sway, the proportion of industrial wealth controlled by the large corporations has been increasing at a

[36] The 1899 census reported 66.7 per cent of all manufactured products are made by corporations, as against 87.0 per cent in 1919. An extension of trend based on the log of the figure for the per cent of manufactured products not made by corporations according to the census figures of 1899, 1909, and 1919 indicates that in 1929 approximately 94 per cent of all manufactured products were made by corporations. Basic figures obtained from 14th census of the U.S., vol. viii, pp. 14 and 108.

[37] National Industrial Conference Board, *Conference Board Bulletin* no. 38 (February 25, 1930), p. 303.

[38] The use of the gross assets of corporations rather than their tangible wealth is reasonable, since the comparison is primarily for noting changes in relationship rather than an absolute relationship.

[39] Compounded annually.

rate even faster than the proportion of corporate wealth controlled by them.

(4) Since estimates of national wealth are extremely approximate it is not possible to determine the growth in the proportion of national wealth controlled by the large corporations, but there can be little question that the proportion has been increasing at a rapid rate.

The Manner of Growth

To check further the conclusion that large corporations have been growing more rapidly than all corporations, a study was made of the ways in which corporate growth takes place. A given corporation can increase the wealth under its control in three major ways: by reinvesting its earnings, by raising new capital through the sale of securities in the public markets, and by acquiring control of other corporations by either purchase or exchange of securities. While there are numerous other ways by which an increase could take place, such as private sale of securities to individuals, these three so far outweigh other methods that they alone need to be considered. Each of these three ways of increase has been examined to discover the relation of the activity of the large corporations with respect to that of all corporations.

A. Growth by Reinvestment of Earnings

A comparison of the savings of large corporations with those of all corporations indicates that the big companies as a group save a larger proportion of their net income. In the six-year period from 1922 to 1927 inclusive, 108 corporations (all of the 200 largest for which consolidated statements could be obtained for each year) saved 38.5 per cent of their net income available for dividends.[40] In the same period,

[40] TABLE VI

COMPARISON OF SAVINGS BY LARGE CORPORATIONS AND BY ALL NON-FINANCIAL CORPORATIONS 1922–1927

Calendar year	Proportion of net income saved	
	By 108 identical large corporations[1] (*per cent*)	By all non-financial corporations[2] (*per cent*)
1922	33.8	33.7
1923	41.5	37.8
1924	37.5	26.6
1925	39.9	36.3
1926	42.2	28.2
1927	35.2	14.8
Total for 6 years	38.5	29.4

[1] 108 identical companies, (39 railroads, 31 public utilities, and 38 industrials) included at one time or another between 1922 and 1927 in the list of 200 largest corporations. In-

all corporations combined saved only 29.4 per cent of their net income.[41] While the figure for the savings by the 108 corporations does not necessarily represent the proportion of income saved by all the two hundred largest companies as a group, there is no reason to think that a bias exists in the large sample chosen. We can therefore conclude that the large corporations gain in relation to the smaller corporations as a result of savings.

B. Growth through Public Offering of Securities

In the second field, the increase in corporate wealth through sale of securities in the public markets, the large corporation plays a most important rôle. The *Commercial and Financial Chronicle* publishes for each month a list of the new corporate securities offered to the public. This list may be accepted as including practically every public offering.[42] For the six years from the beginning of 1922 to the end of 1927, the offerings of every third month (March, June, September, and December) were classified according to (1) those offered by one of the 200 largest corporations (1927 list) either directly or through a subsidiary, and (2) those offered by companies independent of the largest 200. In making the classification all offerings amounting to two million dollars or more not made directly by one of the big companies were checked to determine whether or not they were made by a subsidiary of the latter. Smaller offerings not made by a big company were classed with the latter only where the offering company was recognized as a subsidiary. It is therefore possible that a few smaller issues were classified wrongly as offerings of small companies. The total volume of such errors could not have been great; but to the extent that they existed they would tend to minimize the proportion of offerings by the large companies.

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formation was obtained from *Moody's Railroad, Public Utility,* and *Industrial Manuals* covering net income available for dividends and cash dividends paid. Any loss reported was treated as negative income. Savings were recorded as net income less cash dividends.

[40] Ratio of savings to net profits after taxes for all non-financial corporations as reported in *Statistics of Income* for the respective years.

[41] This difference in rate of saving is probably not an indication of greater liberality in paying dividends on the part of the small corporations but an indication of their greater liability to loss. For both groups, the net income for the group included the net income of those making a profit minus the losses suffered by the remainder.

[42] A representative of the company publishing the *Commercial and Financial Chronicle* writes—"Bond and investment houses all over the country report to us all their offerings, sending us complete details so as to get a notice in our paper, and in addition we have virtually all the newspapers of the country searched for information regarding bond and stock offerings of every kind. We have a very extensive clipping service of our own, subscribing for hundreds of newspapers, and in addition get clippings from numerous regular clipping agencies. In the circumstances we do not see how we could fail to learn of any offerings of consequence and therefore our offerings of corporate securities may be regarded as practically complete."

Further examination shows the dominance of the large corporations. Of all the bonds offered, the proportion issued by the big companies varied from 50.2 per cent to 68.2 per cent in different years while the percentage of stocks varied from 28.1 to 82.5. There is no clear indication of a trend one way or the other. For the whole period, however, 63.6 per cent of all securities were offered by the big companies.

Two important adjustments should be made to obtain the proportion of new capital going into the large corporations. A certain proportion of these securities was offered by financial corporations and therefore involved a duplication of investment. When the issues of financial corporations are subtracted from the total issues, the proportion of securities offered by the large companies is increased, amounting in the maximum year to 78.6 per cent and for the period as a whole to 71.8 per cent. That such a large proportion of all public financing should involve financing by the 200 largest corporations is indeed striking. It is fair to assume, however, that an important amount of the issues by these large and established companies involved refunding rather than the actual raising of new capital. It is not possible to segregate the refunding from the new issues by the large corporations; but the total volume of refunding for all non-financial corporations is reported separately by the *Commercial and Financial Chronicle*. If we arbitrarily attribute 90 per cent of this refunding to the large corporations, a minimum estimate of the proportion of new capital raised by them should be obtained. The estimate obtained by such a method indicates that 74.7 per cent of new capital procured by the floating of securities in the public market was obtained by the 200 largest companies in 1927, the year of maximum proportion, and that, for the six years from 1922-27 inclusive, 66.5 per cent of new capital obtained by this method was received by the large corporations. This must account, in a considerable degree, for the more rapid growth of the large corporations in relation to all corporations.

C. Growth through Mergers

The third and more spectacular method of growth of the large corporations is by consolidation or merger. In considering this growth, it is necessary to treat separately mergers between two companies already included in the list of two hundred companies and mergers in which one of these companies absorbs a company not included. In the six-year period under consideration 26 companies included in the list of 200 largest at one time or another during the period were acquired by another large corporation.[43] This concentration of the 200 large companies in 1922 into a smaller group in 1927 required the addition of other companies to take the place of those absorbed if the total of 200

[43] See Table VII.

Table VII
Mergers of Big Companies[1] 1922–1929

Companies on list of 200 largest companies at some time during period which have been acquired by another company on the list.

Year	Company acquired	Acquiring company	Assets of company acquired at about the time of acquisition (*million dollars*)
1919	None		
1920	Associated Oil Co.	Pacific Oil Co.	$68.1
1921	Midwest Refining Co.	Standard Oil Co. of Ind.	85.9
1922	Lackawanna Steel Co.	Bethlehem Steel Corp.	89.6
1923	Toledo, St. Louis & West. Rd. Co.	N.Y.,Chi.&St.L.R.R.Co.	59.5
	Chile Copper Co.	Anaconda Copper M. Co.	151.4
	Midvale Steel & Ordnance Co.	Bethlehem Steel Corp.	285.4
	Morris & Co.	Armour & Co.	95.0
	Steel & Tube Co. of America	Youngstown Sh. & T. Co.	94.0
	Utah Copper Co.	Kennecott Copper Co.	66.0
1924	Carolina, Clinchfield & O. Rd. Co.	Atl. Coast Line R.R. Co.	78.7
	Internat. Gr. Northern Ry. Co.	Mo. Pac. R.R. Co.	77.5
	Chicago Elevated Rys. Co.	Commonwealth Ed.Co.	97.4
1925	Kansas City, Mex. & Or. Ry. Co.	At., To. & S. Fe Ry. Co.	88.0
	Alabama Power Co.	Southeastern Pr. & Lt. Co.	86.0
	New Orleans Public Service Co.	Electric Pr. & Lt. Co.	69.3
	Ohio Fuel Supply Co.	Columbia Gas & Elec. Co.	78.9
	Utah Securities Corp.	Electric Pr. & Lt. Co.	100.0[2]
	Western Power Corp.	North American Co.	96.4
	Magnolia Petroleum Co	Standard Oil Co. of N.Y.	212.8
	Pan Am. Pet. & Trans. Co.	Standard Oil Co. of Ind.	179.5
1926	Penn. Electric Corp.	Ass. Gas & Elec. Co.	88.1
	Standard Power & Light Co.	Ass. Gas & Elec. Co.	300.0[2]
	United Rys. Investment Co.	Standard Gas & Elec. Co.	250.0[2]
	Pacific Oil Co.	Standard Oil Co. of Calif.	181.0
	General Petroleum Corp.	Standard Oil Co. of N.Y.	102.0
	Pacific Petroleum Co.	Standard Oil Co. of Calif.	95.3
1927	Georgia Ry. & Power Co.	Southeastern Pr. & Lt. Co.	76.5
	San Joaquin Light & Power Co.	Western Power Corp.	75.0
1928	Northwestern Pacific Ry. Co.	At., To. & S. Fe Ry. Co.	70.0
	Pere Marquette Rd. Co.	Allegheny Corp.	157.0
	Texas & Pacific Rd. Co.	Missouri Pacific R.R. Co.	140.0
	American Light & Traction Co.	United Lt. & Pr. Co.	128.5[2]
	Brooklyn Edison Co.	Cons. Gas Co. of N.Y.	153.3
	Mackay Companies	Internat. Tel. & Tel. Co.	93.4
	Montana Power Co.	American Pr. & Lt. Co.	106.0
	National Electric Power Co.	Middle West Utilities Co.	123.0
	National Public Service Corp.	Nat. Electric Power Co.	174.7
	Philadelphia Electric Co.	United Gas Imp. Co.	278.4
	Puget Sound Power & Light Co.	Eng. Public Service Co.	122.2
	California Petroleum Co.	Texas Corp.	102.2
	Dodge Bros. Inc.	Chrysler Corp.	131.5
1929	General Gas & Electric Co.	Associated Gas Co.	175.0
	Massachusetts Gas Companies	Koppers Co.	89.6
	Mohawk Hudson Power Co.	Niagara Hudson Pr. Co.	190.0[2]
	New England Power Assoc.	Internat. Paper & Pr. Co.	216.8
	Northeastern Power Corp.	Niagara Hudson Pr. Co.	131.4
	Penn-Ohio Edison Co.	Com. & So. Pr. Co.	153.3
	Southeastern Power & Lt. Co.	Com. & So. Pr. Co.	507.2
	Greene Cananea Copper Co.	Anaconda Copper M. Co.	56.2

[1] Merger is used here to refer to the acquisition of contro of one company by another either involving a consolidation of properties or simply stock control.
[2] Estimated.

independent companies was to be maintained. The mergers therefore increased the assets of the 200 corporations in the latter year by the amount of the assets of the companies added. Since this involved the addition of smaller companies having average assets in 1927 of approximately $90,000,000, the increase in the assets of the 200 largest in 1927 over the 200 largest in 1922 would amount to roughly $2,340,000,000 (26 times $90,000,000). This is the amount of the increase in assets which should be attributed to mergers between companies already included in the 200 largest.

The addition to the assets of the 200 largest companies through the acquisition of smaller companies is extremely difficult to estimate. It is safe to say, however, that it is large, perhaps involving an addition of as much as $2,000,000,000 for the six-year period.[44]

It is evident that mergers may result in a growth in the importance of the large companies with a reduction in the sum of the assets of small companies. No merger between corporations can bring about an increase in the assets of the group of small companies. This form of growth must therefore make for increased relative importance of the large corporation.

So far we have considered the three most important ways in which the large corporations could increase their proportion of total corporate assets. We find that as a group they saved a larger proportion of their net income, that as a group they received a very much larger proportion of new capital obtained in the public markets than their relative assets would warrant, and finally that to a very considerable extent they increased their assets through merger or consolidation at the expense of the corporate assets not included in the large companies.

It must not be concluded, however, that this necessarily proves the more rapid growth of the large corporations. There are two ways by which the assets of the group of smaller corporations might be increased which would have little effect on the larger companies. First, corporations frequently obtain new capital from private sources. As the largest companies almost invariably obtain their new capital by public offerings, the addition to assets from private sources would redound almost entirely to the smaller companies. Second, the incorporation of a business previously private would add to the total of corporate assets; but, since such a new corporation is unlikely to be included among the

[44] In 1928 and 1929, two years of phenomenal merger activity, sixteen important acquisitions added $724,000,000 to the assets of the large companies. This number doubtless omits the acquisition of many small companies which must have occurred; and it only includes industrial companies. It is, however, suggestive of the extent to which the acquisition of smaller companies can build up the wealth controlled by the larger companies.

Savings out of earnings[43] ....$ 5,748,000,000

largest 200, the gain would fall entirely in the group of smaller corporations. The increase in the assets controlled by smaller corporations from these two sources might, therefore, more than counterbalance the more rapid growth of the larger companies in the fields already considered.

Unfortunately it has not been possible to discover the extent to which corporate assets have been increased by either of these methods. It is possible, however, to determine roughly the amount of increase from these two sources which would have been necessary if the growth of the large corporation had not been more rapid than that of all corporations. If this amount should turn out to be improbably large, the conclusion that the large corporations have grown more rapidly than all corporations would have further support.

The first step in making this estimate is to complete the picture of the growth of large corporations. In addition to the three major ways of growth already considered, changes in their assets can result from certain minor sources. For instance, their gross assets could be increased or decreased by a change in the volume of bank borrowing or by retiring securities without refunding. It is also possible for a corporation to change its assets by marking up or marking down the value of assets on the balance sheet in such a way as not to affect the net profits reported. No effort has been made to discover the exact importance of each of these practices. Marking down of inventories and assets immediately after the depression of 1921 may have accounted for some reduction in assets. Bank borrowings presumably remained constant or decreased slightly. Some securities must have been retired without refunding. In total, however, these items do not appear to have been of serious magnitude.

An additional difficulty arises from the possible duplication involved where a merger was brought about, not through the issue of new securities of the acquiring corporation, but through the direct expenditure of part of its assets. In such a case the actual assets expended in bringing about the merger would have to be subtracted from the increase in assets which would otherwise be attributed to the merger. Thus the four to five billion dollars of assets added to the total of the 200 corporations between 1922 and 1927 would presumably have involved a smaller actual addition. These unknown factors make it extremely difficult to approximate the growth due to the different items, but a rough approximation can be made.

Assuming that mergers brought a bona fide increase of $4,000,000,000 to the assets controlled by the large corporations in the six-year period, their total growth would be derived from the following sources:

Savings out of earnings[45]	$ 5,748,000,000
New capital from sale of securities	11,820,000,000
Growth as a result of mergers	4,000,000,000
Total additions to assets	$21,568,000,000
Actual growth as compiled	19,561,000,000
Loss in assets from reappraisal, retirement of securities other than refunding, etc.	$ 2,007,000,000

While at best this is only an approximate compilation, it is worth noting that more than half of the growth of the large corporations, not as individuals but as a group, arose from new capital obtained in the public markets, somewhat more than a quarter came from savings, and less than a quarter as a result of mergers and consolidations. At the same time this increase was in some measure counterbalanced by a decrease in assets through reappraisal and through the retiring of securities other than refunding.

On the basis of this compilation it is possible to make an estimate of the increase in the assets of all corporations which must have occurred if large and small had increased at the same rate. Two additional assumptions are necessary, first that reappraisal, retirement of securities, etc., accrued to the same extent with both large and small corporations and can therefore be disregarded; and second that 45 per cent of the assets of all corporations in 1927 were held by the largest 200 companies. If the large companies with 45 per cent of all corporate assets added $21,568,000,000 to their assets in the six-year period, the remaining corporations with 55 per cent of all assets would have had to add $26,360,000,000[46] to their wealth if they were to grow at the same rate as the large companies. The addition to assets through saving, public offerings, private offerings, and incorporation of new companies must have amounted to this figure plus $4,000,000,000 to replace the estimated assets of small companies absorbed into the 200 largest as a result of mergers. Of this $30,360,000,000, savings could account for $6,509,000,000[47] and public offerings $5,795,000,000,[48] leaving $18,056,000,000 of new assets which must have been added in six years through private sale of securities and through incorporation of previously unincorporated businesses if the small companies were to keep pace with the larger ones.

[45] Estimated on the assumption that the savings by the largest 200 corporations bore the same relation to the savings of the sample of 108 of their number as did the gross assets of each group in each of the six years.

[46] $21,568,000,000: 45%::X:55%.

[47] Total savings by all non-financial corporations less estimated savings by 200 large corporations.

[48] Six-year total of new financing by all non-financial corporations less that by big companies.

three years. Some important mergers occurred in 1930 and others are now in progress. The consolidation of the railroads into a few

This figure is so large as to be extremely improbable. The volume of unincorporated business which is incorporated each year is not large, probably not adding over half a billion at the most. The volume of new capital obtained by private offerings is probably somewhat greater, particularly through the launching of new enterprises, but even this is unlikely to average more than a billion a year. It is probably very much less. Therefore, while no accurate figures can be advanced to indicate beyond doubt that very much less than $18,000,000,000 was added to the assets of smaller companies through private sale of securities and through incorporation of private businesses, the magnitude of this sum lends considerable support to the previous conclusion that the large corporation as a group has been growing at a more rapid rate than other corporations.

Since the studies of net income and methods of growth both support the general conclusion derived from the study of gross assets, we can accept the results of that study with greater confidence and seek to discover their significance. The most important of these findings were: first, that for the 18-year period from 1909 to 1927 the annual rate of growth for the largest 200 corporations amounted to 5.3 per cent as against 3.5 per cent for all corporations; second, that in the three years from 1924 to 1927 the rates of increase were respectively 7.3 per cent and 4.7 per cent; and third that between 1922 and 1928, the large corporations increased at the annual rate of 6.3 per cent, while the national wealth increased (on the basis of very approximate estimates) only 2 .0 per cent a year.

The exact significance of this more rapid growth of the large corporations can be better understood when these rates are projected into the future. If all non-financial corporations and these 200 largest corporations should increase in the next twenty years at the rates indicated for the period from 1909 to 1927, by 1950 two-thirds of non-financial corporate wealth would be held by 200 huge units.[49] If the more rapid rate of growth from 1924 to 1927 were maintained for the next twenty years, 80.5 per cent would be held by the largest 200 in 1950. If the indicated rates of growth of the large corporations and of national wealth were to be effective in the future, within twenty years, virtually half of the national wealth would be owned by the 200 giant corporations.

Whether the relative growth of the large corporations will continue in the future as in the past, there is no means of knowing. In the years 1928 and 1929 for which the data are as yet incomplete there are many indications that they have gained even more rapidly than in the previous

[49] Assuming 45.0 per cent of non-financial corporate wealth was held by the largest 200 in 1927.

apply when the dominant competing units are smaller and more numer-

three years. Some important mergers occurred in 1930 and others are now in progress. The consolidation of the railroads into a few major systems promises to concentrate industrial wealth still further. The extension of chain, group, and branch banking tends to concentrate the banking resources into larger aggregates which are better able to assist the further expansion of the huge companies. The technique of larger scale administration is improved by experience and makes still larger aggregates possible. The sheer economic weight of "big business" tends to dissolve any popular resistance to its concentration. There appear to be few forces in action which would tend to retard its development. There are many which would accelerate it. The trend is unmistakable.

Conclusion

In conclusion, then, the huge corporation, the corporation with $85,000,000 of assets or more, has come to dominate most major industries if not all industry in the United States. A rapidly increasing proportion of industry is carried on under this form of organization. There is apparently no immediate limit to its increase. It is coming more and more to be the economic unit with which American economic, social, and political life must deal.

What are the implications involved in these conclusions? Only a few of the myriad implications can be suggested here, a few of particular importance to the economist.

(1) Most fundamental of all, the economist must think, to a very important extent, in terms of these huge units rather than in terms of the multitude of small competing elements of private enterprise. For most fields Marshall's "representative firm" has ceased to be a useful tool of thought, since the great companies which dominate one industry after another are in no sense "representative." The emphasis must be shifted to that very great proportion of industry in the hands of a relatively few units, units which can be studied individually and concretely. Such studies will reveal the operation of half of industry and what is more important, that half which is likely to be more typical of the industry of the future.[50]

(2) Competition has changed in character and the principles applicable to present conditions are radically different from those which

[50] For instance it seems likely that a study of the directors and senior officers of the 200 largest companies, their training, social background, and other characteristics, would reveal more of vital importance to the community than a study of those at the head of thousands of smaller companies. The same would be true of the ownership of the large companies, their labor policies, their price policies, their promotion practices, etc. This is not to suggest that the practices of the large companies would be typical of the smaller companies, but rather that they would be factually more important.

APPENDIX

apply when the dominant competing units are smaller and more numerous. The principles of duopoly have become more important than those of free competition.

(3) An increasing proportion of production is carried on for use and not for sale. With the increase in the large companies, a larger proportion of goods is consumed by the producing organization in the process of making further goods. To this extent the calculus of cost versus quality would presumably be solved in the interests of producing a product which would yield the maximum use per unit of cost rather than the maximum profit per unit of investment. Under the latter incentive the consumer is only incidentally offered the product which will give him the most use per unit of cost unless he himself is easily able to measure usefulness. Adulteration, shoddy goods, and goods of lower quality than would be economically desirable are frequent under the incentive for profit. To the extent that production is for use by the producing organization there is no such incentive.[51]

(4) The nature of capital has changed. To an increasing extent it is composed not of tangible goods, but of organizations built in the past and available to function in the future. Even the value of tangible goods tends to become increasingly dependent upon their organized relationship to other tangible goods composing the property of one of these great units.

(5) Finally, a society in which production is governed by blind economic forces is being replaced by one in which production is carried on under the ultimate control of a handful of individuals.[52] The economic power in the hands of the few persons who control a giant corporation is a tremendous force which can harm or benefit a multitude of individuals, affect whole districts, shift the currents of trade, bring ruin to one community and prosperity to another. The organizations which they control have passed far beyond the realm of private enterprise—they have become nearly social institutions. Shall we then regard these men as seekers for private gain or as economic statesmen serving the commonweal?

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[51] For instance, it is to the advantage of the American Telephone and Telegraph Company to have its subsidiary, the Western Electric Company, make the best possible vacuum tubes for the innumerable repeater sets in use on its long distance lines. On the other hand, it might be to the advantage of a corporation making tubes for sale to the public to make second-grade tubes which would wear out quickly and allow a second sale at a second profit to be made.

[52] Less than 2,000 men were directors of the 200 largest corporations in 1927. Since an important number of these are inactive, the ultimate control of nearly half of industry was actually in the hands of a few hundred men.

APPENDIX

Table IIa

72 Industrial Corporations in List of 200 Largest Companies in 1919 and 1927

Name	Gross assets on or about Dec. 31 (*million dollars*)	
	1919	*1927*
Allied Chem. & Dye Corp.	$ 59.6	$ 250.4
Aluminum Co. of America	85.0[5]	300.0[5]
American Can Co.	135.0	167.9
American Car & Foundry Co.	177.7	125.9
American Locomotive Co.	97.4	111.3
American Smelt. & Refining Co.	215.2	227.7
American Sugar Refining Co.	147.4	180.0[5]
American Tobacco Co.	206.1	210.5
American Woolen Co.	125.9	124.6
Anaconda Copper Mining Co.	236.5	620.0[5]
Armour & Co. (Ill.)	490.8	471.2
Atlantic Refining Co.	95.4	138.8
Bethlehem Steel Corp.	357.2	651.7
Chrysler Corp.[1]	66.9	103.8
Consolidation Coal Co.	135.1	97.2
Corn Products Refining Co.	138.0	118.7
Crane Co.	58.0	101.3
Crucible Steel Co. of America	123.1	115.6
Cuba Cane Sugar Corp.	109.9	111.1
Deere & Co.	84.1	84.9
Drug, Inc.[2]	58.0	149.0[5]
Du Pont de Nemours & Co. (E. I.)	240.9	322.4
Eastman Kodak Co.	88.7	125.2
Firestone Tire & Rubber Co.	73.7	100.9
Ford Motor Co.	332.9	742.0
General Electric Co.	276.7	428.1
General Motors Corp.	446.6	1,270.0[5]
Goodrich Co. (B. F.)	175.7	115.2
Goodyear Tire & Rubber Co.	163.2	213.3
Gulf Oil Corp. of Penn.	218.4	347.3
Inland Steel Co.	59.3	89.0
International Harvester Co.	266.6	325.5
International Mercantile Marine Co.	268.6	161.4
International Paper Co.	86.4	290.5
Jones & Laughlin Steel Corp.	130.0[5]	201.0
Kennecott Copper Corp.	135.6	278.3
Lehigh Coal & Nav. Co.	76.0	87.7
Liggett & Myers Tobacco Co.	151.4	181.0
Lorillard Co.	88.3	99.6
National Biscuit Co.	77.7	109.6
National Lead Co.	88.0	102.2
Ohio Oil Co.	81.7	104.4
Phelps Dodge Corp.	147.2	127.5
Pittsburgh Coal Co.	159.7	157.9
Prairie Oil & Gas Co.	117.9	186.3
Procter & Gamble Co.	93.7	84.9
Pullman, Inc.	190.0[5]	302.8
Pure Oil Co.	115.0	188.8
Republic Iron & Steel Co.	125.8	120.6
Reynolds Tobacco Co.	100.0[5]	154.4

(Continued on next page)

[1] Changed from Maxwell Motor Corp. to Chrysler Corp. in 1925.
[2] Changed from United Drug Co. to Drug Inc.

TABLE IIa (*Cont.*)

Name	Gross assets on or about Dec. 31 (*million dollars*)	
	1919	*1927*
Sears, Roebuck & Co.	$ 154.8	$ 184.7
Sinclair Cons. Oil Corp.	232.2	400.0[5]
Singer Mfg. Co.	100.0[5]	182.5
Standard Oil Co. of Calif.	174.3	579.3
Standard Oil Co. of Ind.	200.0[5]	775.0[5]
Standard Oil Co. of N. J.	853.3	1,426.6
Standard Oil Co. of N. Y.	234.0	678.0
Studebaker Corp.	88.1	135.8
Swift & Co.	489.5	337.2
Texas Corp.	230.8	324.6
Tide Water Associated Oil Co.[3]	59.9	248.9
Union Carbide & Carbon Corp.	200.0[5]	213.1
Union Oil Associates[4]	89.6	213.7
United Fruit Co.	147.6	208.2
United Shoe Machinery Corp.	76.1	92.7
U. S. Rubber Co.	319.5	339.9
U. S. Steel Corp.	2,365.8	2,433.5
Vacuum Oil Co.	79.6	158.7
Westinghouse Elec. & Mfg. Co.	184.8	222.6
Wilson & Co.	127.0	95.6
Woolworth Co. (F. W.)	89.5	137.7
Youngstown Sheet & Tube Co.	90.0[5]	216.9
(Total 72)	$14,364.4	$21,084.6

[3] Changed from Tide Water Oil Co. to Tide Water Associated Oil Co. in 1926.
[4] Changed from Union Oil Co. of Calif. to Union Oil Associates.
[5] Estimated.

TABLE IIb
45 RAILROADS IN LIST OF 200 LARGEST COMPANIES IN 1919 AND 1927

Name	Gross assets on or about Dec. 31 (*million dollars*)	
	1919	*1927*
Atchison, Topeka & Santa Fe	$ 876.9	$ 1,041.5
Atlantic Coast Line	620.0[2]	886.6[2]
Baltimore & Ohio	823.3	1,003.4
Boston & Maine	219.0	243.3
Chesapeake Corp.[1]	342.9	441.1
Chicago & Alton	139.0	130.3
Chicago Burlington & Quincy	581.8	630.3
Chicago & Eastern Illinois	114.4	96.2
Chicago, Great Western	131.4	149.9
Chicago, Milwaukee, St. Paul & Pacific	735.0	743.2
Chicago & North Western	491.0	550.9
Chicago Rock Island & Pacific	385.3	474.2
Chicago & Western Indiana	100.8	86.6
Chicago Union Station Co.	60.0[2]	101.0
Delaware & Hudson	164.0	174.9
Delaware Lack. & Western	269.8	180.4
Denver & Rio Grande Western	241.8	223.6
Erie	492.1	521.7
Florida East Coast	61.6	127.9
Great Northern	723.1	806.1
Illinois Central	459.5	681.6
Kansas City Southern	117.1	153.7
Lehigh Valley	215.3	215.7
Missouri Kansas Texas	219.9	302.5
Missouri Pacific	433.3	561.4
N. Y. Central	1,209.5	1,450.8
N. Y. Chicago & St. Louis	86.3	227.9
N. Y. N. H. & Hartford	515.6	538.6
Norfolk & Western	381.5	460.0
Northern Pacific	737.2	795.5
Pennsylvania	1,807.6[2]	2,400.0[2]
Pere Marquette	136.4	157.0
Reading Co.	302.1	382.5
Seaboard Air Line	222.4	275.1
Southern Pacific	1,619.6	2,105.5
Southern Ry.	549.1	638.1
Spokane, Portland & Seattle	128.3	135.7
St. Louis-San Francisco	314.0	420.8
St. Louis Southwestern	118.7	136.0
Union Pacific	775.9	1,114.0
Virginian	109.9	153.1
Wabash	231.4	319.7
Western Maryland	148.8	162.3
Western Pacific	115.6	116.7
Wheeling & Lake Erie	88.6	102.4
(Total 45)	$18,616.8	$22,619.7

[1] Changed from Chesapeake & Ohio to Chesapeake Corp. in 1927.
[2] Estimated.

TABLE IIc

36 PUBLIC UTILITIES IN LIST OF 200 LARGEST COMPANIES IN 1919 AND 1927

Name	Gross assets on or about Dec. 31 (*million dollars*)	
	1919	*1927*
American Pr. & Lt. Co.	$ 100.0[7]	$ 520.9
American Tel. & Tel. Co.	1,530.1	3,457.4
American Water Works & Elec. Co.	140.0[7]	355.7
Boston Elevated Ry. Co.	73.8	113.2
Brooklyn-Manhattan Transit Corp.[1]	225.7	271.2
Brooklyn Union Gas Co.	56.2	106.6
Buffalo, Niagara & Eastern Pr. Corp.[2]	61.2	210.2
Chicago Railways Co.	107.3	115.0
Cities Service Co.	531.6	735.2
Columbia Gas & Elec. Corp.	74.3	393.4
Commonwealth Edison Co.	130.1	314.4
Commonwealth Power Corp.[3]	70.0[7]	313.8
Consolidated Gas Co.	176.1	842.9
Con. Gas Elec. Lt. & Pr. Co. of Baltimore	65.6	123.9
Detroit Edison Co.	75.4	234.2
Edison Elec. Ill. Co. of Boston	62.8	168.0
Elec. Pr. & Lt. Corp.[4]	90.3	350.0[7]
Hudson & Manhattan R. R. Co.	127.1	131.5
Interborough Rapid Transit Co.	406.0	527.9
Middle West Utilities Co.	90.0[7]	970.0[7]
National Pr. & Lt. Co.	75.0[7]	500.0[7]
North American Co.	230.0[7]	655.4
North Am. Lt. & Pr. Co.[5]	88.0	243.3
Pacific Gas & Elec. Co.	167.8	337.6
Peoples Gas Lt. & Coke Co.	102.1	162.6
Philadelphia Rapid Transit Co.	56.9	93.0
Portland Elec. Pr. Co.[6]	69.8	93.9
Public Service Co. of No. Illinois	60.7	151.2
Public Service Corp. of N. J.	167.0	615.4
Puget Sound Pr. & Lt. Co.	89.7	122.2
Southern Calif. Edison Co.	100.4	295.2
Standard Gas & Elec. Co.	200.0[7]	983.2
Third Av. Ry. Co.	80.2	90.9
United Gas Improvement Co.	104.8	681.9[7]
United Rys. & Elec. Co. of Baltimore	92.0	95.4
Western Union Telegraph Co.	229.6	326.2
(Total 36)	$6,107.6	$15,702.8

[1] Changed from Brooklyn Rapid Transit to Brooklyn-Manhattan Transit Corp. in 1923.
[2] Changed from Niagara Falls Power Co. to Buffalo, Niagara & Eastern Pr. Co. in 1925.
[3] Changed from Commonwealth Pr. Ry. & Lt. Co.
[4] Changed from Utah Securities Corp. to Electric Pr. & Lt. Corp. before 1926.
[5] Changed from Illinois Traction Co. to North American Lt. & Pr. Co. before 1924.
[6] Changed from Portland Ry. Lt. & Power Co. to Portland Elec. Pr. Co. in 1924.
[7] Estimated.

TABLE IId

25 INDUSTRIALS IN LIST OF 200 LARGEST CORPORATIONS IN 1927 BUT NOT IN 1919

Name	Gross assets on or about December 31, 1927 (*million dollars*)
Amer. Radiator Co.	$100.6
Borden Co.	90.6
Cuban Dominican Sugar Co.	88.4
Dodge Bros., Inc.	131.5
Glen Alden Coal Co.	244.5[1]
Gt. At. & Pac. Tea Co. of America	113.2
Gt. Western Sugar Co.	86.3
Internat. Match Corp.	189.4
Internat. Shoe Co.	97.1
Koppers Co.	150.0[1]
Kresge Co. (S. S.)	87.3
Loew's Inc.	103.5
Long-Bell Lumber Corp.	114.9
Marland Oil Co.	117.9
National Dairy Products Corp.	91.1
Paramount Famous Lasky Corp.	156.9
Phila. & Reading Coal & Iron Corp.	127.9
Phillips Petroleum Co.	143.4
Pittsburgh Plate Glass Co.	89.6
Prairie Pipe Line Co.	129.1
Richfield Oil Co.	149.0[1]
Shell Union Oil Corp.	348.2
Tobacco Products Corp.	117.0[1]
U. S. Realty & Imp. Co.	100.0[1]
Wheeling Steel Corp.	120.4
	$3,287.8

[1] Estimated.

TABLE IIe

22 PUBLIC UTILITIES IN LIST OF 200 LARGEST CORPORATIONS IN 1927 BUT NOT IN 1919

Name	Gross assets on or about December 31, 1927 (*million dollars*)
Amer. Elec. Pr. Corp.	$ 96.9[2]
Amer. Gas & Elec. Co.	407.0[2]
Amer. Lt. & Traction Co.	128.5[2]
Amer. States Securities Corp.	125.0[2]
Assoc. Gas & Elec. Co.	338.8
Duke Power Co.	180.9
Elec. Bond & Share Sec. Corp.[1]	353.8
Empire Power Corp.	133.0[2]
Engineers Pub. Serv. Co.	177.3
Federal Water Serv. Corp.	149.0
General Gas & Elec. Corp.	151.2
Internat. T. & T. Corp.	232.7
Midland Util. Co.	128.9
Mohawk Hudson Pr. Corp.	182.9[2]
New England Pr. Assoc.	192.4
Northeastern Pr. Corp.	150.0[2]
Pacific Lighting Corp.	122.5
Penn. Ohio Edison Co.	113.0[2]
Southeastern Pr. & Lt. Co.	474.4
St. Louis Pub. Serv. Co.	113.0[2]
United Lt. & Pr. Co.	278.4
Utilities Pr. & Lt. Corp.	240.8
	$4,470.4

[1] Assets of America & Foreign Power Co., only.
[2] Estimated.

MODERN ADVERTISING AND ECONOMIC THEORY

In the hands of private enterprise advertising affords an effective means of manipulating tastes for private profits.

In the economic theory which has become embodied in our common-sense attitude towards business, it is represented that producers of goods are rewarded in proportion to the success with which they cater to tastes for which, as producers, they are not responsible.

It is contended in this article that, in so far as modern advertising affects incomes by warping consumptive practices, economic theory is not relevant to the justification of commercial gains. Apologists for advertising are not justified in invoking a common-sense attitude into which economic theory has been blended.

During the past few years there has been a veritable flood of articles, monographs and books about advertising. The bulk of this literature has come from the pens of the laity, professional advertisers, and teachers of advertising in our business colleges. The layman's criticisms have been written in an understandable and interesting style for popular appeal and have been heavily discounted in the field of "serious thought." The advertisers' pronouncements concerning their profession have been similarly discredited, possibly because they are assumed to be biased and not "scientific." The teachers of advertising seem to be essentially interested in the technique of advertising and have not been looked to for any penetrating analysis. It is not quite clear, however, how the economist can justify having continually ignored this amazingly powerful force which has entered his own arena. Can it be that he has been so generous with his explanations of the effect of other forces in our economic organization that, like Epimetheus of old, he has nothing left to bestow upon this perhaps the most noble of all economic handiwork?

It is interesting to note that in almost all of the older standard texts and treatises on economics only incidental mention of advertising occurs. Some of the more recent writers, in their meticulous desire to be all inclusive, give an account of the phenomenon; but, with two or three notable exceptions, the discussion is tacked on awkwardly like a vermiform appendix and has little or no connection with their basic presumptions. This observation will be readily accepted if the contentions of this article are tenable. The writer maintains it is impossible to admit fully the effect of advertising and at the same time regard orthodox theory as an adequate explanation of the marketing and distributive processes.

The economist starts with certain observations, presumably abstracted from the nature of common practices and human proclivities, and then proceeds to explain economic phenomena. These observations are points of departure; and if these basic ideas are not congruous with the facts they are supposed to exemplify, then the philosophical structures reared

upon them are liable to all the faults and criticisms of the foundation on which they rest. For example, the economist is wont to contemplate the alignment of productive forces as being guided by their owners who are endeavoring to cater profitably to the wants of the individuals who comprise society. This is the conclusion of generations of thought and study. Now if it should happen that since the advent of modern advertising these wants have been created by the owners of productive forces, there may be no reason for assuming that the alignment of these forces has been in accord with the foregoing conclusion.

In this article the writer proposes to examine, first, the nature of economic theory and the characteristics of its implications as it bears upon wants, and production for their satisfaction. Second, because the satisfaction of human wants is supposedly the end of production and a fundamental problem of economic theory, it will be necessary to recount the nature of want manifestations in the past and to see how they have been modified by changes in industrial technique. Third, because it will be proposed that modern advertising vitally affects want behavior, the advent of modern advertising will be noted and followed by an evaluation of current views concerning this phenomenon. Finally, the challenge that modern advertising offers to economic theory will be stated.

Economic theory is used here in the sense of an explanation of the direction of industry under a régime of free enterprise and free exchange. This is the sense in which the term economic theory is employed by Cournot, Jevons, Pareto, J. B. Clark, Schumpeter and others. This economic theory has generally concluded that under conditions of free enterprise each agent of production will be rewarded automatically according to its contribution in satisfying wants. F. H. Knight states the case as follows:

> Modern society (on the economic side) is organized on the theory that the owners of productive resources will find their best use and place them in it, because in that way they can procure the largest returns for themselves. This system, therefore, involves the assumption that even in a complex organization the separate contribution of each separate productive agency can be identified, and that free competitive relations tend to impute to each agency its specific contribution as its reward for participation in productive activity. And to the extent that the system works at all, that we have an economic order instead of chaos, this assumption must be justified.[1]

It is to be maintained in this article that the effect of modern advertising is to render inadequate current economic theory as an explanation of modern commercial processes. Since this is the case, it might be recorded here that Knight conceives the purpose of economic theory to be

[1] *Risk, Uncertainty and Profit* (Houghton Mifflin, New York, 1921), p. 57.

the justification of the assumption he sets forth in the above quotation.[2]

Value is generally supposed to be determined as the result of dual forces of competition. We have, on the one hand, competition among various producers to rid themselves of products at the highest price possible, and on the other, competition among consumers to secure these products in which are incorporated want-satisfying qualities. The producers are thus motivated by the possibility of securing a profit, and the consumers are motivated by the desire to satisfy their wants. Under such conditions, if some product appears that can command a conspicuously profitable price for its producer, his competitors, it is presumed, will transfer their equipment to the creation of this product in order that they also may share in the extraordinary gains. When they transfer their equipment in this way, the supply of the product will be increased and the competition will force the price down. At the same time the supply of the commodities of which the production has been discontinued, will be lessened and consequently, to some degree, their prices will be raised. In this fashion the maximum physical production is identified with maximum net returns. There is a tendency, in other words, for the margin of net return which is identified with physical product to be equal in all lines of production.

Some such reasoning as this is basic in the so-called marginal theories of value. Of course it is freely admitted that certain lags, frictions and changes enter into the situation to prevent these forces from working perfectly. Legal restraints like patents, franchises, trade marks, etc., are obvious, and technological difficulties like immobility of some of the factors are qualifying considerations. However, the tendency of economic forces toward maximum physical production and service in response to the tastes of the members of society, is presumed to be, to a large extent, inexorable.

The tastes which are the fundamental determinants of the alignments which productive agents will make are always presumed to be independent of the person catering to them. That such preferences are independent of the producers of goods who are to profit by their existence and

[2] In theory like H. J. Davenport's where production and distribution are synonymous terms, one cannot justify distribution on the basis that the shares of distribution depend upon the efficiency of production, because by his own analysis the amount of production is measurable only by the proceeds. It is significant that Davenport denies all ethical implications of his theory. But it is also significant that such a denial robs economic theory of the principal purpose for which it was developed.

It has been argued that Veblen's treatises are on economic theory, but more exactly they are explanations of the development of institutions. They are perhaps regarded as economics because the institutions are intimately connected with our economic practices.

The implications of classical and neo-classical economic theory are well demonstrated in L. A. Morrison's critical treatise on economic theory (yet in manuscript form); and the writer wishes to acknowledge Professor Morrison's influence.

that no enterprise can be held responsible for the desirability of consumptive habits, are important presumptions, for it is by such reasoning that the economist has been able to avoid the necessity of evaluating wants. The ethical question is specifically denied, the wants may be good or bad; but it is not necessary for the economist to pass judgment on them, for the pursuit of profit which directs economic activity is not responsible for their quality. "Economic wants may be serious, frivolous, or even positively pernicious, but the objects of these wants all alike possess utility in the economic sense."[3]

J. B. Clark sums up these tendencies in economic activity in what he calls "natural law," which if it worked without friction would give to every agent of production the amount of wealth which that agent creates and further declares:

> At this point in the economic system where titles to property originate,—where labor and capital come into possession of the amounts that the state afterwards treats as their own,—the social procedure is true to the principle on which the right of property rests. So far as it is not obstructed it assigns to every one what he has specifically produced.[4]

We have here what is sometimes described as the "social utility theory" of private property, which proposes that private property is a desirable custom, because it is a powerful stimulant to industry and enterprise. It is in this connection that the implications of the above conclusions are important; that is, conditions require the individual to be alert in detecting the wants of the members of society and set about catering to those which are most urgent if he is to profit fully by the privilege of property rights which have been conferred upon him by society. Circumstances force him who would profit most to serve most. In the words of one eminent scholar: "In the present stage of the evolution of human nature private property constitutes the chief incentive to better and greater production."[5]

The opinion that there is something inherent in our system which automatically guides the instruments of production into those fields or pursuits which yield maximum satisfaction[6] is reflected in the field of marketing and advertising in the rather popular shibboleth: "The consumer is King." It is assumed that the consumer executes a royal prerogative of thumbs down on the producer that contravenes His Majesty's peculiar tastes and thus metes out just punishment to the impudent or careless. Likewise the consumer is supposed to reward

[3] R. T. Ely, *Outlines of Economics* (Macmillan, New York, 1928, 4th ed.), p. 96.

[4] J. B. Clark, *Distribution of Wealth* (Macmillan, New York, 1927), p. v (preface).

[5] Edwin R. A. Seligman, *Principles of Economics* (Macmillan, New York, 7th ed.), p. 135.

[6] Alfred Marshall, *Principles of Economics* (Macmillan, London, 1925), *passim*.

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abundantly, by rich patronage, the courtier who caters most faithfully to his whims. As a corollary of this, it is presumed that the consumer knows best what he wants; and, since the ultimate end of production is the satisfaction of human wants the ***summum bonum*** of economic activity is achieved by the rather simple expedient of leaving it all to the consumer to decide.

Such conclusions emphasize the importance of remembering that traditional economic theory assumes of necessity that wants of the consumer of goods are independent of the enterpriser who is to furnish the goods. Imagine the confusion that would follow if J. B. Clark and Marshall and other votaries were forced to concede that the tastes of the consumer were manipulated by those who supplied the goods. Is it not true, however, that by modern advertising wants are often successfully directed so than an ambitious enterpriser is without the necessity of scrupulously abiding by the consumer's choices because he possesses the machinery for modifying and changing the consumer's wants to his own end of greater profits?

Here it must be recalled that, since the fundamental concepts of economic theory were first formulated, a great change has taken place in our methods of production. This may well account for the lack of adjustment between theory and the present-day economic system. The situation is suggestive of one of Veblen's observations to the effect that the habits of thought change more slowly than do the material circumstances of life. The current views concerning things, the common sense apprehensions of what are the proper limits, rights and responsibilities, are the outgrowth of traditions, experiences and speculations of past generations.[7] Possibly advertising is too modern to be properly understood, although some commentators have held that modern advertising is a direct outgrowth of practices of antiquity.[8] Perhaps some analogy can be made from carefully selected data; but such comparisons can be made only by neglecting important developments that give modern advertising its chief characteristics.

If we go back far enough, say to the early Middle Ages, we encounter conditions that are strikingly different from those we find today. Commodities exchanged were comparatively few in number, and rather standardized consumption prevailed. Fashions changed, but relatively speaking, these changes were rare and gradual. It is true that some leaders at times manifested striking originality in their choices; and there were often instances where these were imitated by court followers, and might

[7] Thorstein Veblen, ***Theory of Business Enterprise*** (Scribner's, New York, 1923), p. 70.

[8] See Advertising, ***Encyclopedia of the Social Sciences*** (Macmillan, New York, 1930).

eventually be imitated by the lower classes, in spite of the restraining forces of habit and custom and sumptuary legislation. It is important to observe, however, that more often than not these changes in tastes were independent of the desires of the producers of goods. Sometimes, possibly, they were in spite of the wishes of the craftsman who found it easier to produce in accordance with the skill and patterns which were handed down to him through generations. Another force acted as a deterrent to change, in this connection, namely, the authority of the Church. The power of the Church rested essentially upon tradition; and consequently it was opportune for the Church to nurture traditions by scrupulously observing precedent. The Church showed no reluctance in interfering with individual activity which was designed to promote private gain, especially when this activity tended to violate the *status quo*. The theory of "just price" amply illustrates this. When the State superseded the Church in power, it too, showed no reluctance to interfere with individual acquisitive activity. Economic organization compatible with state ends was sought by enacting regulations and laws that interfered vitally with what we regard as being inherent in individual rights. Even today the State sometimes interferes in the accumulation of individual wealth; for example, the enforcement of pure food and drug laws. However, we have come a long way from the minute and intimate regulations of the past. Overt regulations of the business man's activities are regarded as the exception and not the rule. It is an attitude and practice grounded on the assumption that the various shares of national wealth are automatically determined and commensurate with the service rendered by the individual recipients of the shares. In this article an attempt will be made later on to show that this assumption is out of accord with facts, that the size of a share in the national wealth can be as easily augmented by manipulating our tastes as by catering to them.

The important changes in social habits that have brought us to an impasse in our theory appeared after the Industrial Revolution. Before this customs did change, but with a slowness that would have been miserably unprofitable to many a modern enterpriser. What would have been equally distressing was the fact that the changes came, in large part, independently of the wishes of the manufacturers. The introduction of the factory system set in motion social changes of such magnitude that they were without precedent and beyond the comprehension of anyone then living. Not only was there an urbanization of population, but in many cases considerable geographical shifting. Change from rural to city life created circumstances which forcibly and cruelly subjected a large part of the population to conditions in which traditional behavior was of less consequence. The most stubborn of

customs, under the new circumstances, were forced to yield.[9] With old prejudices broken by environmental changes and enforced coöperation, new needs were felt and great opportunities were afforded to men who could anticipate the deflections of the inertia of change which was rapidly overcoming the homely virtues of stability that had hitherto prevailed. Society cried for more and newer things. The creed of change became the catechism of the religion of progress.

For a time the situation was beyond the control of any individual; and no producer had the capacity for directing tastes effectively, though great rewards were always awaiting the person who could successfully anticipate the next wants of society and have ready the products that would satisfy these wants as soon as the wants developed. People were willing to pay relatively dear for any commodity that would gratify a very urgent desire. During this period the theory that he who serves society most profits most, was well ingrained in the minds of the economists and political philosophers. Wants were conceived to be emotions or physical necessities that were self-generated in the individual; and the producer produced in response to or in anticipation of these wants. So generally was this notion accepted during the early part of the nineteenth century that it rarely ever occurred to men to advertise. The individual, it was presumed, knew what he wanted and had a way of seeking out the producer who could supply him with the proper commodity. Of course there were times when it was thought desirable to advise the public as to the nature of the supply; and when new stocks were received it was not unusual to announce the fact in some modest fashion. Bear in mind, however, that these announcements were in acknowledgement of prevailing tastes and were not designed to warp consumptive habits.

By the beginning of the twentieth century things had changed. The perceiving producer had begun to find it more profitable to fashion wants, and cash in more certainly on the changes he had wrought, than to continue the precarious practice of submitting new and old things to tastes that were inclined to be rather whimsical.[10]

[9] See John Stuart Mill's account of peasant customs and his detailed description of the kind and quantity of goods peasants were wont to consume. (*Principles of Political Economy,* Ashley ed., pp. 256 ff.) Compare these habits of consumption with those of any people subject to changes in taste that business enterprise mobilized to the purpose is able to effect.

Contemporary analogies may be cited. Contemplate the traditional choices of the Southern mountaineers in the United States and the changes they are undergoing as these people are being incorporated in the business process that marks the shift of the textile industry from the North to the South.

A more convincing illustration of the point here considered is the vanishing of the German peasant customs which has occurred with the comparatively recent advent of modern advertising in that country.

[10] The profitableness of this new procedure is often attested. Observe the widely

It is maintained here that the fundamental aims of advertising are: the creation of wants, the shaping of tastes, the determination of values.[11] This thesis has been generally denied by teachers of advertising and advertising agencies, even though they will admit that manufacturers "have used advertising when their plants have necessitated a *readjustment* or *control* of the demand for their product." They do not admit "that the primary economic function of advertising is to stimulate or control consumption," that is, to create wants, but do declare that the demand for articles "is being awakened, intensified, directed and made articulate."[12] Be this as it may, if we admit the infinite potentialities of tastes of individuals, the insistence that advertising awakens, intensifies, and directs desires and does not create them becomes inconsequential.

In elaboration of the views of teachers of advertising, and some economists, one writer insists that the chief function of advertising is education and calls attention to an analysis of a typical issue of one of our well-known women's magazines. The analysis indicated to him:

> . . . that over 40 per cent of the advertisements contained information of such service that it might have been placed in the editorial columns. It told her how to prepare better meals, how to arrange her kitchen, how to decorate her home, how to preserve her personal appearance, and how to protect the health of herself and her family. In many instances she could make use of the information without buying the advertiser's product. When she is educated to a better knowledge of health and diet, or a keener appreciation of decorative arts in the home, she has benefited immediately. Later the advertiser may profit also, if and when she buys his article.[13]

It is just such undue emphasis upon the incidental educational qualities of advertising that beclouds the whole issue from the standpoint of the traditional economic analysis. It would be amazing if the advertisers

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accepted slogan: It pays to advertise. "The great increase in the amount of advertising in the past century and the apparent prosperity of most companies that have advertised persistently may be accepted as evidence that advertising benefits those who use it." George Burton Hotchkiss, "An Economic Defense of Advertising," American Economic Review supplement, March, 1925, p. 14.

It may be insisted that advertising itself is a precarious undertaking. To a degree this is undoubtedly so because there are various advertisers trying to mold tastes in conflicting ways, but this should not be confused with competition to satisfy existing wants.

[11] This position is sometimes admitted by the advertisers and economists, though it seems that in their analysis, dissent is more frequent. Admission makes it easy to demonstrate that the accepted economic theory is deficient. If the producer has power to produce tastes, how can it be said that his energies will be expended in catering to the existing wants? The beneficence of such a system is perforce identified with the beneficence of the individuals who are to secure a reward for successfully warping the community's desires.

[12] Hotchkiss, *op. cit.*, p. 15. Italics the present writer's.

[13] *Ibid.*, p. 19.

were able to "put over" an idea without encroaching at all upon the field of general knowledge. It is surprising, indeed, that there is not a great deal more than 40 per cent of advertisements which contain information of such service that it might be placed in the editorial columns, when we recall that the modern magazine is essentially a product of advertising.

From the viewpoint of economic analysis it is unimportant whether the information disseminated by the advertiser be beneficial or pernicious; though it is granted that such questions of goodness or badness might be of interest in an ethical evaluation of advertising. It is admitted, in fact insisted by the writer, that any significant evaluation of advertising must proceed along such lines. It is necessary here only to emphasize that there is nothing in economic theory by which its goodness or badness can be tested. It may be profitable to the manufacturer, and the critic may deem it desirable that it be impressed upon the minds of the consumer that Lucky Strike cigarettes possess some magic quality for soothing the throat of the smoker, or that the socially élite sleep in Simmons beds, and so on. But in so far as he is not immune to the calculated and subtle influence of the advertiser, the critic's evaluations are the results of attitudes instilled in him by advertising.

Mark Anthony possessed a remarkable appreciation of the temper of the Roman Senate and the populace and understood well that an effective approach should start with an acceptance of the professed views of his audience and then progress cautiously but surely from these concepts to those he wanted the people to hold. At every step he was careful to "let" the people "achieve" for themselves the ideas and attitudes that he himself held. This is analogous to the psychology of modern advertising. Now the advertiser and his cohorts cannot rightfully present the tastes that the advertiser has built up as evidence that the people want these tastes and then argue that because of this the advertiser is giving a *quid pro quo*. Nor can they logically invoke economic explanation that industry is being automatically directed by wants in such a way that each agent of production is being rewarded according to what it specifically produces in response to wants which are independent of the advertiser's influence. That such procedure is profitable is not pertinent at the present stage of this discussion. Economic explanation, which constitutes traditional economic theory, deals with the satisfaction of wants that are independent of the manufacturer. However, it is maintained that in any event the educational qualities are merely incidental to the advertising process.

It may be observed that there are any number of advertisers and economists who are inclined to believe that a large part of advertising

is concerned solely with advising an eager public of the existence of things and their uses. They seem to regard advertising agencies as some sort of well-organized news bureaus that merely announce and describe new products and herald coming events. So long has this thought been cherished that it is a serious criticism to suggest that only a portion of advertising may be so described.[14] This thought seems to persist because of the difficulty people have in differentiating between news and out-and-out demand creation. The difference should become immediately clear when one pauses to consider the extensive use made of trade marks. It is not vitamins in general that are good for what ails one, but the particular proportions found in X brand of product. Who ever heard of "antiseptic listers"[15] as a remedy for the fear of halitosis? Listerine is the one and only product for such a purpose. Here is an example of education at its best. It includes the creation of a felt difficulty followed by a suggested means of escape. Listerine is an excellent product for overcoming the *fear* of halitosis, and the makers have implanted and cultivated this fear in order to make it a paying proposition. Their success is well known. The psychosis of fear of foul breath has been made an American plague. There is no escape. Neither your best friend, nor most intimate relative will advise you if foulness actually exists. The educational effectiveness of this campaign is exemplified by a happening recently related by a supervisor of health education in the public schools of a New Jersey city.[16] Janet Brown of the third grade, in an original health paper, described with convincing sincerity the plight of an imaginary little Mary. She was completely ostracized by her playmates because she suffered from halitosis. Her little friends did not dare to tell her. Finally she learned of listerine and immediately became the favorite of all the children. This paper was singled out from the more prosaic ones for special commendation.[17]

[14] It is possibly true that a part of retail store advertising may be described as "announcement" advertising. Very often, however, this type of advertising includes the use of nationally advertised brands and fashions in such a way as to make it part and parcel of the drive to shape consumers' tastes.

[15] Proprietary name for listerine (*i. e.*, the name by which the product was known to the doctor and druggist before the Lambert Pharmacal Company made their trade mark so famous.)

[16] This account was related to the writer.

[17] The example of listerine and halitosis is not invidiously selected here because it is an exception, but because it is well known and particularly well illustrates the point. Another example might well serve the same purpose. It is obvious that the Chesebrough Manufacturing Company has created a large demand for vaseline, their trade mark for petroleum jelly. In this connection it is interesting to know that producers are at great pains to keep their trade marks from becoming descriptive of the proprietary product to which the trade mark is applied. The law holds that if a trade mark becomes descriptive of the commodity, the producer loses the valuable property right attached thereto; for, under such circumstances, if the product itself is not patented, the trade mark immediately becomes public

For the purpose of our analysis, it is not important that certain goods satisfy certain wants, but it is important that advertising has created the wants which the advertised goods will satisfy.[18] Even if one is prepared to admit the contention which seems to be a great consolation to the advertiser, that in the major changes the consumer does largely select the trends of consumption, the thesis of this article remains untouched. Whoever heard of an advertising campaign failing because it was trying to create favor for something for which the people had no liking? Advertising fails only when it fails to make people want particular things.[19] It is true that a few long-standing customs, the few that remain, may show a remarkable stubbornness before the advertiser's relentless attack. A few years ago we witnessed the "emancipation" of women from cumbersome styles. The long skirts were abandoned and with them went the constraining corsets. Everyone joined in the chorus sung in praise of the new sanity in dress. Today we witness the spectacle of the reverse. The style czars acting in collusion with the textile makers, it is alleged, have demanded the return of the long silhouette designs which require the wearing of the torturing corset in the achieving of a proper foundation. It is not surprising that women are adopting the new fashions, though some advertisers have been a little surprised at the slowness with which they were succeeding in putting the idea across.

Admitting for the sake of argument that the consumer enjoys some power of selecting trends of consumption, one is forced to note that the whole environmental scheme is colored by advertising practices. The media by which the environment exerts its influence on the individual have been redesigned or reconstructed to meet the needs of advertising. In turning to the changes wrought by the aggregate of advertising campaigns, contemplate the less subtle changes in our scenery, both urban and rural, attributable to the works of the outdoor advertisers. The gaudy achievements in revamping the interiors of our street cars, suburban and interurban trains, busses, etc., are too conspicuous to need mention here. The same is true, to a less obvious degree, of the changes wrought in the field of literature. The magazines of the

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property. In case the product is patented, the right to the trade mark becomes public property automatically with the expiration of the patent.

[18] It is admittedly a trivial change in taste when taste is shifted from sugar to *domino sugar*. It is just this subtle quality of change in taste which obscures theoretical implications. But remember it is not necessary for the change to be important from a "social" standpoint to cast reflections on the validity of economic theory.

[19] Some defenders of advertising receive great consolation from pointing out that certain advertising campaigns have been known to fail. The failure is measured, however, in accordance with the standards here suggested. It is to admit that there are limits to even the most despotic control.

early nineteenth century were edited for a circulation that would now be unprofitable. Most of them in the light of present-day standards would be regarded as austere and dry.[20] They were before the advent of advertising and the jazz age of change. The gaudy, mad colors that make our corner news stands resemble a drunken rainbow had not appeared upon the scene. The day had not yet come when they could afford to give the magazine away. It has been described as an age of crusades. Homely virtues were determinedly cherished before the columns were to be sold to the god of change who could afford to pay. Poe received four dollars a page for the "Murders in the Rue Morgue." Hawthorne was offered five dollars a page in 1842. Could it be that these men were unworthy amateurs? Probably not, but advertising has changed the whole appearance of journalism. The format, brilliant colors and contents of the modern magazine are determined by advertising. The best writers are those who are most easily incorporated in business purpose. Compare Poe, Hawthorne, Whittier, Whitman, Cooper, Lowell, and Longfellow with Edgar Guest, the late Dr. Frank Crane, Zane Grey, and Harold Bell Wright. The unusual success of the latter group is undoubtedly due to their easy adaptability to the rather popular and profitable tastes of advertising.

It may be insisted that all these cultural developments are good. It must, however, be reiterated that it makes no difference from the viewpoint of this analysis. It is of no consequence here whether the precepts that advertising engenders are as impeccable as the beatitudes. If demand can be created, how can we assume that productive energies are to flow into those fields in which, because of small supplies and large demands, prices are high above costs? Are we justified in assuming that there is a tendency in that direction? Frequently we see just the opposite taking place. "In some industries—the California Raisin Growers, for example—increased consumption has resulted in great benefits by making demand balance supply. Advertising was an important instrumentality without which this purpose could not have been attained so easily and cheaply."[21]

An important consideration of enterprise today is not the catering to wants, but the creation, modification and direction of wants. In so far as the returns depend on advertising, they are not derived from catering to wants, but from cultivating tastes for commodities, the supply of which the individual producer controls. Often in the business world the primary consideration is the success with which an enterprise can control taste and is not, as is commonly supposed, the ability to cater to wants that exist independent of the advertising activities of

[20] See Frank Luther Mott, *History of American Magazine, 1741-1850.*

[21] Hotchkiss, *op. cit.*, p. 15.

the producer. Imagine one reformulating J. B. Clark's specific productivity theory of value in a situation in which the wants he is talking about are wants created by the producer![22] By the same test, would not Marshall's net value product theory also come tumbling down; likewise all other conventional marginal distributive analyses that are based upon the concept of physical production?[23] And if it is admitted that the greatest returns go to those who are most successful in manipulating our tastes for a profit, can any defense be made of our property system on the grounds that there is something inherent in our economic organization which safeguards society by forcing the individual who seeks to profit most to use his property to the advantage of others?

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[22] John Bates Clark, *Distribution of Wealth, passim.*
[23] Alfred Marshall, *op. cit., passim.*

PREFERRED STOCK IN THE UNITED STATES

1850-1878

Between 1850 and 1878 preferred stock was rarely used outside of the transportation industry. In this field, however, it was issued more frequently than previously and it was employed for a greater variety of purposes. Probably as a consequence of its increased use, general rather than special legislation became the authority for its issue. At the same time it was procuring a permanent and distinct place in the financial structure of the corporation. This necessarily involved many changes in the characteristics of this type of stock.

The third quarter of the nineteenth century was an important period in the development of preferred stock in this country. From its earliest appearance until 1850, this stock was nearly always a temporary device for raising capital. It differed very little from common stock.[1] As the early issues of preferred stock had proved so effective in procuring funds, corporations employed this method of obtaining money with greater frequency during the period under consideration. New occasions for its use arose; the authority for its issue was changed; and it became a permanent and complex instrument of corporate finance.

The use of preferred stock was confined before 1850 almost entirely to the transportation industry. This condition continued for at least the next twenty-five years. Except for preferred stocks in canal and railroad enterprises, I have noted before 1878 the existence of such stock in only eleven companies.[2] Since the number of canal preferred stocks was small, it is clear that during this phase of its development this type of stock was still used predominantly in the railroad industry. This seems to be in sharp contrast to the conditions in Germany and England. Hunt's *Merchants' Magazine* in 1859 reprinted a table from the *Statistical Annual* of Otto Hübner which showed that in Germany preferred stock was used not only by railroads and canals, but by foundries, bath and gambling houses, building associations, cotton factories, breweries, chemical factories, and sugar factories.[3] *Fenn's Compendium* published in 1872 indicates that in England preferred stock was frequently issued by telegraph and gas companies, waterworks, breweries, and railway rolling stock companies.[4]

In the field indicated—canals and railroads—there is a plenty of

[1] For the history of preferred stock in this country before 1850 see G. H. Evans, Jr., "The Early History of Preferred Stock in the United States," AMERICAN ECONOMIC REVIEW, March, 1929.

[2] New England Worsted Co., Augusta Water Power Co., Cumberland Coal & Iron Co., Mariposa Mining Co., Mariposa Land & Mining Co., Quicksilver Mining Co., Newport & Cincinnati Bridge Co., Cincinnati & Covington Bridge Co., International Ocean Telegraph Co., Reno Real Estate Co., and Wyandotte Agricultural Works.

[3] Hunt's *Merchants' Magazine and Commercial Review*, Nov., 1859, p. 586.

[4] *Fenn's Compendium of the English and Foreign Funds*, 11th ed., pp. 537-557.

evidence to show that preferred stock was often used in this country in the period under study. However, as many of these stocks were infrequently quoted on the exchanges, no single reference can be given which will adequately picture the situation which prevailed at any particular time. The following, nevertheless, will give some idea of the conditions at various dates. A careful examination of Martin's *Twenty-one Years in the Boston Stock Market*[5] will show that in 1855 ten railroad preferred stocks were known to the Boston exchange. The first issue of the *Commercial and Financial Chronicle*, July 1, 1865, contained a table entitled "Preferred and Guaranteed Railroad Stocks" which included twenty-one preferred stocks.[6] Four weeks later the same journal had in its "Railroad, Canal, and Miscellaneous Stock List"[7] eleven railroad preferred stocks which were not in the table of July 1; these were in addition to fifteen that did appear in the earlier issue. A similar list in the *Chronicle* of July 2, 1870[8] gave information on thirty-six railroad, three canal, and two mining preferred stocks. After 1874 lists similar to those mentioned above ceased to appear as a part of the weekly *Chronicle* but may be found in the *Investors' Supplement* which was issued by the same journal. The July, 1875, issue of the *Supplement* included in its tables forty railroad, two canal, and two mining preferred stocks. Not only was the number of such issues large, but the volume was considerable and the railroads using this device were important. Evidence on this point is furnished by the following figures for the year 1865 on the outstanding preferred stocks of seven roads:[9]

Baltimore & Ohio	$3,000,000
Chicago & Alton	2,425,200
Chicago & Northwestern	2,400,000
Erie	8,535,700
Hannibal & St. Joseph	5,253,856
Marietta & Cincinnati	8,529,553
Milwaukee & Prairie du Chien	3,787,500

In this period the use of preferred stock was generally associated with financial difficulties; before 1850 there had invariably been this connection. Preferred stock continued to be used to procure funds to complete and equip failing roads.[10] Its use in reorganizations began and throughout the period was important.[11] Frequently a road delayed

[5] 1856 edition.
[6] Page 27.
[7] July 29, 1865, p. 156.
[8] Page 18.
[9] *Commercial & Financial Chronicle*, July 1, 1865, p. 27.
[10] For example: Pa. & N.Y. Canal & R.R., see *Pa. Laws 1869*, No. 715; and Mich. Lake Shore R.R., see *Commercial & Financial Chronicle*, Apr. 12, 1873, p. 493.
[11] For example: Elmira & Williamsport R.R., see *Pa. Laws 1860*, No. 591; Erie

or prevented reorganization by paying with preferred stock its bond interest.[12] This stock also appeared in consolidations[13]—the bonds of the old roads being exchanged for the preferred stock of the new company. Sometimes a railroad—this was chiefly true of the Pennsylvania Railroad Company—advanced money to a road in difficulty and received in exchange preferred stock to an amount sufficient to give complete or substantial control over the assisted enterprise.[14] In 1871 the Pennsylvania Railroad used preferred stock in another way. To control its western holdings, it organized the Pennsylvania Company with four million common stock and eight million preferred. The entire amount of the preferred was turned over to the railroad by its newly created subsidiary in return for the securities of the western roads.[15] It is worthy of note that the Pennsylvania Company was the only corporation, other than those resulting from consolidation or reorganization, which issued preferred stock at the beginning of its business existence. This device was not yet recognized as a regular part of a corporation's original financial structure.

A change in the legal authority for preferred stock issues occurred about 1852, probably as a result of the increased use of this stock. Though there were some contradictory experiences, the general rule of law prior to that date appears to have been that each issue had to be authorized by a special legislative act. The General Railroad law of Indiana passed in 1852 indicates a new era.[16] It authorized railroads

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Ry., see *N.Y. Laws 1861,* ch. 119; Atlantic & Great Western R.R., see *Commercial & Financial Chronicle,* May 4, 1872, p. 595 and Oct. 18, 1873, p. 511; and Detroit, Lansing & Northern R.R., see P. W. Ivey, *The Pere Marquette Railroad Company,* p. 54. The evidence which is available is only sufficient to warrant mention of the fact that in a few of the reorganizations of this period the preferred stockholders, who had been the bondholders of the old company, forced the creation of a mortgage to secure their stock. For example: Catawissa R.R., see *Pa. Laws 1860,* No. 229 and also *Pa. Laws Appendix 1861,* No. 550; Detroit & Milwaukee R.R., see *Commerical & Financial Chronicle,* Apr. 11, 1874, p. 375; and St. Louis, Alton & Terre Haute R.R., see *Commercial & Financial Chronicle,* Feb. 26, 1876, p. 199.

[12] For example: Vicksburg & Meridian R.R., see *Commercial & Financial Chronicle,* June 18, 1870, p. 785; and Fort Wayne, Muncie & Cincinnati R.R., see *Commercial & Financial Chronicle,* May 10, 1873, p. 627.

[13] For example: Atlantic, Mississippi & Ohio R.R., see *Va. Acts 1869-70,* ch. 143; Covington & Lexington R.R., see *Commercial & Financial Chronicle,* May 22, 1875, p. 500; and Mobile & Montgomery R.R., see *Commercial & Financial Chronicle,* Aug. 14, 1869, p. 206.

[14] Philadelphia & Erie R.R., see *Commercial & Financial Chronicle,* Apr. 12, 1873, p. 482, and also H. W. Schotter, *The Growth and Development of the Pennsylvania Railroad Company,* p. 76; South & North Alabama R.R., see Henry V. Poor, *Manual of the Railroads of the United States,* 1871-72, p. 446; and Cleveland, Mt. Vernon & Delaware R.R., see *Commercial & Financial Chronicle,* Apr. 17, 1875, p. 381.

[15] *Commercial & Financial Chronicle,* Mar. 11, 1871, p. 306.

[16] An Act to provide for the incorporation of railroad companies, approved May 11, 1852, Sec. 20.

to issue preferred stock to provide for the payment of debts and for construction and equipment costs. The only other requirements of this act were that a majority of the stockholders give approval and that the amount should not exceed one-half of the capital of the company. Ohio by general act in 1856 allowed railroads to sell preferred stock in order to pay their floating debts.[17] In 1865 the same state permitted the use of such stock by any company organized to construct a bridge across the Ohio River.[18] In 1870 it granted any manufacturing company the right to issue preferred stock to pay its debts or to furnish working capital;[19] and in the same year permitted railroads to dispose of it for the purpose of redeeming their bonded debts.[20] In 1868 every Maryland corporation which had the power to obtain money upon mortgage was given the privilege of using preferred stock instead of exercising its borrowing powers.[21] The extent of this substitution was to be decided by the corporation. Pennsylvania in 1872 authorized the creation of this type of stock by any organization established under general law.[22] Of course not all states were quick to follow the new move. In 1877 the preferred stock of a New York mining company was declared illegally issued because of a lack of legislative authority.[23]

About 1850 preferred stock began to obtain a permanent and distinct place in corporate finance. As this occurred, its rights and privileges became more varied and more clearly defined. Previous to that date, this stock had generally been issued with the understanding that it was automatically to become common stock as soon as the corporation attained a certain degree of prosperity—usually when the company was able to pay on all its stock a dividend equal to that promised the preferred shareholders. It is true that occasionally in the period under consideration, when preferred stock was sold, there was the hope or intent that it would not always remain a part of the financial structure of the issuing corporation. Its existence, however, was not to be terminated by its automatic conversion into common stock—as in the past—

[17] *General Laws of Ohio, 1856,* An Act to enable railroad companies to fund their floating debts, March 29, 1856.

[18] *General Laws of Ohio, 1865,* An Act to regulate companies incorporated for the construction of bridges across the Ohio river, March 16, 1865.

[19] *General Laws of Ohio, 1870,* An Act to authorize manufacturing corporations to issue preferred stock, passed March 25, 1870.

[20] *General Laws of Ohio, 1870,* An Act to enable railroad companies to redeem their bonded debts, passed April 16, 1870.

[21] *Maryland Laws, 1868,* ch. 471, Sec. 219.

[22] *Laws of Pennsylvania of 1872,* No. 28, An Act to authorize corporations to issue preferred stock.

[23] *Commercial & Financial Chronicle,* Oct. 13, 1877, p. 358; see also Kent. *v.* Quicksilver Mining Company, 78 N.Y. 159 (1879).

but by the new devices of voluntary or compulsory redemption[24] or the practically new device of voluntary conversion.[25]

One of the attributes of preferred stock indicative of its development as a permanent and distinct stock was the participation feature. As long as the preferred was automatically to become common at an early date, there was no need for this privilege. After 1850, however, numerous instances of participation appeared.[26] For example, the Chicago & Northwestern Railway seven per cent preferred was entitled to a further preference of three per cent after the common had received seven per cent and to an equal participation with the common after both had received ten per cent.[27] The St. Louis, Kansas City & Northern Railway preferred—a ten per cent stock—participated equally with the common after both had received ten per cent.[28]

The same change is also seen in the fact that several companies issued more than one class of preferred stock. In 1851 the Lexington and West Cambridge Railroad issued two classes of preferred stock;[29] the Marietta and Cincinnati Railroad in the reorganization of 1860 did likewise;[30] and the Milwaukee and Prairie du Chien had outstanding in 1861 first and second preferred stocks.[31]

Provisions which restricted the power of corporations to increase outstanding preferred stock issues sometimes existed. The preferred stock of the St. Louis, Alton and Terre Haute Railroad could be increased only with the expressed sanction of the holders of a majority of the stock and bonds.[32] At this time preferred stock was rarely given a veto power on the issue of new bonds.[33] However, a United

[24] See *General Laws of Ohio, 1856,* An Act to enable railroad companies to fund their floating debts, March 29, 1856, Sec. 4; Lexington & West Cambridge R.R., see *Mass. Laws, 1851,* ch. 5; and Milwaukee & Prairie du Chien Ry., see *The (American) Railway Times,* Jan. 4, 1862, p. 6.

[25] Lexington & West Cambridge R.R., see *Mass. Laws, 1851,* ch. 5; and St. Louis, Alton & Terre Haute R.R., see *Commercial & Financial Chronicle,* Feb. 26, 1876, p. 199.

[26] A few participating preferred stocks, other than those given below in the text, may be found in the following references: Norwich & Worcester R.R., see *Mass. Laws, 1850,* ch. 187; Chicago & Alton R.R., see *Commercial & Financial Chronicle,* Feb. 26, 1876, p. 198; Pennsylvania Co., see *Commercial & Financial Chronicle,* Apr. 19, 1873, p. 523; and Boston, Clinton, Fitchburg & New Bedford R.R., see *Mass. Laws, 1877,* ch. 170.

[27] *Commercial & Financial Chronicle,* Feb. 26, 1876, p. 199.

[28] *Ibid.*

[29] J. G. Martin, *op. cit.,* p. 56.

[30] *The (American) Railway Times,* Feb. 22, 1862, p. 58.

[31] *Ibid.,* Jan. 4, 1862, p. 6.

[32] *Commercial & Financial Chronicle,* Aug. 22, 1868, p. 232. Catawissa R.R. preferred could be increased only with the consent of three-fourths of this stock. See *Pa. Laws, 1860,* No. 229.

[33] For an instance see Catawissa R.R., *Pa. Laws Appendix 1861,* No. 550.

States Supreme Court decision rendered in 1874 showed clearly that preferred stock needed this protection.[34] The Erie Railway preferred stockholders at that time sought by legal action to assert their right to dividends against bona fide creditors and bondholders of the company whose claims occurred subsequent to the creation of their stock. The decision in this case made it apparent that preferred stockholders generally had no protection against an unlimited increase in the debts of the corporation which took precedence of their stock, provided only that such debts were incurred without fraud.

The voting rights of preferred stock, which in the past had been substantially the same as those of the common, were occasionally limited in this period. The Ohio act of 1870 which permitted manufacturing companies to use preferred stock[35] required that no shares issued under this law should have a vote. Another variation in the right to vote also appeared. At one time in the history of the Connecticut Western Railroad, only the preferred stockholders could vote in the meetings of the company.[36] These changes again indicate that preferred stock was becoming more differentiated from the common which it at first so closely resembled.

The uncertainty about the cumulative character of early preferred dividends was somewhat clarified in the period under consideration. During this time there came before the courts cases involving arrears of preferred dividends on stocks which had been issued without express provision as to whether or not the dividends were cumulative.[37] In each case the dividends were held to be cumulative. The courts supported their conclusions in various ways. They relied primarily upon the idea that preferred stock was common with a contract incorporated in it to pay certain dividends out of profits regardless of when these profits should arise. The agreement, however, did not create the relation of creditor and debtor inasmuch as there was no loan which was to be repaid.[38] Most of these decisions cited in their support the English case of Henry *v.* the Great Northern Railway which was decided in 1857.[39] There it was held that the preferred dividends were cumulative because otherwise the interests of the directors, who were generally ordinary shareholders, would be in conflict with the duty they owed to the holders of both the common and the preferred shares. Entire

[34] St. John *v.* Erie Ry. Co., 22 Wall. 136 (1874), and also *Commercial & Financial Chronicle*, Feb. 26, 1876, p. 198.

[35] *Op. cit.*

[36] *Commercial & Financial Chronicle*, June 16, 1877, p. 564.

[37] Bates *v.* Androscoggin, etc., R.R., 49 Me. 491 (1860); Taft *v.* Hartford, etc., R.R., 8 R.I. 310 (1866); and Lockhart *v.* Van Alstyne, 31 Mich. 76 (1875).

[38] *Ibid.*, and also Kent *v.* Quicksilver Mining Co., 78 N.Y. 159 (1879).

[39] Henry *v.* Great Northern Ry., 1 De G. & J. 606 (1857), aff'd 4 K. & J. 1.

profits would be devoted to improvements when they were insufficient for dividends on both common and preferred stocks; too little would be set aside for this purpose when profits were just large enough to declare both dividends. Such a state of things, it was felt, the legislature could not have intended to exist. These American decisions covered only cases in which there was no mention of whether or not preferred dividends were cumulative. The uncertainty resulting from an absence of such provisions caused corporations to attempt definiteness on this point. Two short articles in the *Commercial and Financial Chronicle*—one in 1868 and the other in 1876—called attention to the fact that there were only a few preferred stock certificates which definitely provided for either cumulative or non-cumulative dividends.[40] The 1878 article also pointed to the rising importance of this subject in view of the fact that many western roads would soon be able to pay dividends.

In summary, preferred stock, which had proved its worth before 1850, was used with increased frequency during the next quarter of a century. It was still confined almost entirely to the transportation industry, though new opportunities for its employment in this field arose. With its more frequent use, general acts rather than special legislation became the authority for its issue. At the same time it was procuring a distinct and permanent place in finance. This involved various changes. Instances of automatic conversion of preferred stock into common ceased to appear. Voluntary conversion—not unknown before 1850—was more frequently used. The participation feature became very common. Corporations issued several classes of preferred stock. Redemption and a veto power on the further issue of preferred stock or bonds were new features which were occasionally found in this period. Voting rights were sometimes limited or enlarged. The cumulative character of preferred dividends became more definite. The simple instrument of the earlier days was developing into a stock with many special rights and privileges.

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[40] *Commercial & Financial Chronicle,* March 7, 1868, p. 312 and Feb. 26, 1876, pp. 198-199.

THE GERMAN INSTITUTE FOR BUSINESS CYCLE RESEARCH

The Institut für Konjunkturforschung was established in Berlin in 1925 for the purpose of analyzing and interpreting current economic data. Through its official connection with the central statistical office for the Reich, the Reichsbank, the Federal Railway Company and other large public and private organizations, this Institute has access to material which makes its weekly, monthly and interim publications of scientific importance.

Intelligent direction of productive forces, supported by a strong influx of foreign capital, has led to a surprisingly rapid convalescence of German economy since the fever of currency inflation. Economic research organizations no doubt have played an important rôle in encouraging and sustaining the more rational mobilization and command of productive factors. In the first rank of these research organizations stands the German Institute for Business Cycle Research—the Institut für Konjunkturforschung. It best represents the application to German conditions of a viewpoint and a method of economic research which was first and most fully developed in the United States. It may be of interest, therefore, to describe briefly the organization and activity of the Institute.

After the stabilization of the German currency, in 1924, there was a growing recognition on the part of government and business leaders of the need for scientific examination and interpretation of the vast mass of economic data, available but largely without significance. It was felt that a scientific institute, similar to economic research agencies already existent in the United States, might develop new means of rationalizing the productive and distributive forces of the German economy. Accordingly, in the middle of 1925 the leading public and private business organizations, together with the federal government, associated in founding the Institut für Konjunkturforschung.[1]

The Institute is constituted as a scientific research organization, supported by the governmental and private bodies indicated in the footnote. It is located in Berlin.[2] The administration is in the hands of a Kura-

[1] The following organizations are associated in supporting the Institute: the federal government, the Reichsrat, the Reichsbank, the Federal Railway Company, the Federal Postal Service, and the so-called "leading associations of German business," consisting of the Deutscher Landwirtschaftsrat; Deutscher Industrie- und Handelstag; Reichsverband der Deutschen Industrie; Reichsverband des Deutschen Gross- und Überseehandels; Hauptgemeinschaft des Deutschen Einzelhandels; Zentralverband Deutscher Konsumvereine; Centralverband des Deutschen Bank- und Bankiergewerbes; Allgemeiner Deutscher Gewerkschaftsbund; Deutscher Gewerkschaftsbund; Gewerkschaftsring Deutscher Arbeiter-, Angestellten- und Beamtenverbände; Reichsverband des Deutschen Handwerks; Deutscher Sparkassen und Giroverband; Deutscher Städtetag; Deutscher Beamtenbund; Allgemeiner Freier Angestelltenbund.

[2] In 1926 the division "Westen" was established in Essen, as a branch of the Institute. This branch is supported particularly by public and private organizations of the Ruhr district.

torium and a Direktorat. The Kuratorium, concerned with the budget and the general supervision of the Institute, represents the supporting organizations. The office of Director, as well as the chairmanship of the Kuratorium, is filled by the President of the Federal Statistical Office, Professor Ernst Wagemann. The Institute is closely associated, through its personnel, with the Federal Statistical Office, the central statistical agency of the Reich. This association, stipulated in the Institute's charter, gives it immediate command over the most extensive statistical material available in Germany. Also, the Institute is fortunate in its close and confident relationship with such public organizations as the Reichsbank and the Federal Railway Company, as well as with private business organizations. There is thus placed at its disposal a great deal of valuable economic data—material which formerly was not available for scientific research. Further, the ease with which the Institute may secure this material enables it to keep its personnel relatively small, and to devote itself largely to examination and interpretation of data.

The new Institute was immediately able to avail itself of the experience of similar American research organizations, particularly the Harvard University Committee on Economic Research. In fact, the statistical methods of measurement and diagnosis which had been developed in the United States formed the basis for the work of the German organization. However, the directory of the Institute believed that structural differences in the economies of Germany and the United States demanded the development of an independent approach to the problem of economic forecasting. Above all, it seemed necessary to avoid commitment to any simple formula of forecasting, or to any single general index of business conditions. The construction of a *series* of indices, reflecting the major aspects of German economy, seemed to promise the most satisfactory approach to an interpretation of economic conditions. Accordingly, the Institute has developed a series of "barometers" which indicate the fluctuating relationships between certain significant economic activities. These "barometers" are as follows:

1. The Barometer of Production, which compares the inflow of orders, imports of raw materials, production, employment, and exports of raw materials;
2. The Index of Employment in the Industries Producing Consumers' and Producers' Goods;
3. The Barometer of Storage Movements;
4. The Barometer of the Domestic Market, as reflected in foreign trade;
5. The Barometer of Business Transactions, which compares long-term credits, inflow of orders, and employment;
6. The Barometer of Credit, which compares credits granted by the banks of issue, bill drawings, bank debits and credits, and issues of stocks and bonds;

7. The Barometer of the Three Markets, which compares the movement of prices on the security, commodity, and money markets;
8. The Barometer of Commodity Prices, which indicates the movement of sensitive commodity prices, prices of industrial raw materials and partly-finished goods, wholesale prices of finished industrial goods, and retail prices.

On the basis of these "barometers" the Institute analyzes and interprets contemporary business conditions. A comparison and weighing of known factors in the dynamics of German economy leads to a general forecast of the fluctuations of that economy, as well as to forecasts of changes in particular aspects thereof. It may be said that a combination of historical comparison and "cross-cut" analysis is the basis for the Institute's forecasts.[3]

The diagnosis and forecasts of the Institute are published primarily in its quarterly, *Vierteljahrshefte zur Konjunkturforschung.* In January, 1926, the Institute published an account of its preliminary studies in the memorandum, *Die Weltwirtschaftliche Lage Ende 1925.* The first number of the quarterly appeared in May, 1926. It is a valuable source of information regarding German economy, and, in a more general way, world economy. "Part A" of the quarterly (there are two parts, "A" and "B") is concerned, first, with a concise diagnosis of the economic situation during the preceding several months, and with a summary prognosis of the immediate future. The introductory diagnosis is, indeed, a résumé of the succeeding discussion. It is followed by a general illumination of German economic conditions, beginning with a presentation of the system of "barometers," and followed by individual examinations of the credit and security markets, of commodity prices and sales, of foreign trade, of industrial production and employment, of the labor market, and of the incomes of important industrial groups. A concise analysis of world economic conditions completes the first part of the quarterly. "Part B" presents a detailed analysis of the contemporary status of the most important branches of German economy.[4] Here, too, a brief summary serves as introduction. The next section is a comprehensive collection of the most recent economic statistics relating to Germany and other leading industrial countries.[5] The tables

[3] See Hardy and Cox, *Forecasting Business Conditions*, New York, 1927, ch. iii. For a discussion of the Institute's "barometers," see Ernst Wagemann, *Economic Rhythm*, New York, 1930, ch. xiv. See also F. Eppenstein, "Das Deutsche Institut für Konjunkturforschung," in *Forschungsinstitute*, Hamburg, 1930, vol. i, pp. 354-358; R. Claoué, "L'Institut für Konjunkturforschung de Berlin," in *Revue d'Economie Politique*, 42, 1, pp. 134-138.

[4] Agriculture, coal mining, iron and steel industry, machine industry, motor vehicle industry, leather and shoe industry, ceramic and glass industry, construction, lumber industry, paper industry, textile industry, toy industry, trade, hand-work, freight traffic, postal traffic.

[5] Belgium, Bulgaria and Rumania, Canada, Czechoslovakia, Denmark, Finland, France, Great Britain, Hungary, Italy, Japan, the Netherlands, Norway, Austria, Poland, Russia (U.S.S.R.), Sweden, Switzerland, United States of America.

of statistics are arranged, first, according to countries, and secondly, according to economic activities. They present a detailed and accurate account, in terms of monthly figures, of the most recent developments in the money and security markets, in commodity prices, wages, and employment, in the production of important commodities, in domestic and foreign trade, in railway and ship traffic, and in the establishment and liquidation of business enterprises. Special articles relating to particular problems of business cycle research often are included in the publication. A bibliography of recent literature relating to the general field of dynamic economics completes the quarterly.

Since the beginning of 1928 the Institute has published weekly reports —a response to many demands from German business leaders. These *Wochenberichte des Instituts für Konjunkturforschung* are intended to provide frequent, short-time diagnoses of contemporary economic conditions. So far, however, the Institute has been relatively little interested in supplying private enterprise with a special forecasting service.

The Institute considers the study of individual markets to be of particular importance. One of the most satisfactory studies undertaken is that relating to the hog market; it has resulted in a fairly accurate forecast of hog prices. Such monographic studies are published from time to time in so-called *Sonderhefte*. They frequently are concerned with problems of methodology, as well as with the results of investigations relating to particular aspects of German economy.[6]

As in most countries, empirical-statistical business cycle study is still in its infancy in Germany. However, a good start has been made in the development and application of a relatively new technique of economic research. And there is promise of a most satisfactory future in the sober, careful work of the Institut für Konjunkturforschung.

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[6]The following "Sonderhefte" have appeared at the date of this writing: (1) *Zur Analyse des Eisenmarktes;* (2) *Die Prognose der Schweinepreise;* (3) *Die Agrarkredite;* (4) *Die Analyse von Wirtschaftskurven;* (5) *Untersuchungen über den Güterverkehr und seinen Rückgang in der Nachkriegszeit;* (6) *Die Saisonschwankungen als Problem der Konjunkturforschung;* (7) *Die Prognose der Schweinepreise* (zweite Auflage); (8) *Der Stickstoffverbrauch der Landwirtschaft in den einzelnen Gebieten des Deutschen Reichs im Jahr 1926-27;* (9) *Der Trend;* (10) *Die Umsatzschwankungen des Einzelhandels als Problem der Betriebspolitik;* (11) *Die Saisonschwankungen der wichtigsten Wirtschaftsvorgänge in Deutschland seit 1924;* (12) *Russische Arbeiten zur Wirtschaftsforschung;* (13) *Bestimmungsgründe der Preise für Schlachtrinder;* (14) *Umsatz und Lagerhaltung im Deutschen Einzelhandel seit 1924;* (15) *Bestimmungsgründe der Baumwollpreise;* (16) *Die neuzeitliche Umstellung der überseeischen Getreideproduktion . . .;* (17) *Die Dynamik des Baumarkts;* (18) *Die Prognose der Schweinepreise* (dritte Auflage); (19) *Die Energiewirtschaft der Welt in Zahlen.*

ECONOMIC THEORY AND THE NATURAL SCIENCE POINT OF VIEW

Paper presented at Round Table Conference, December 30, 1930, at forty-third annual meeting of the American Economic Association, Cleveland, Ohio.

Scientific method in economics involves a closer relationship of economics to other social sciences and the treatment of "price and distribution" as only a part of "theory." Marginal utility theory should be abandoned. "Imperfect" markets and non-productive forms of acquisition are of paramount importance to economic problems. Present theories of business cycles and the price level conflict with Say's law. Social cost accounting can and should include governmental as well as business fiscal policy. All this calls for a partial reformulation of descriptive theory into hypotheses delimited to specific situations and capable of empirical testing. And description and appraisal must not be confused.

Is economics a natural science? Ought the economist to deal with his subject-matter on the basis of natural science assumptions? Ought he to use natural science methods? Ought he to be concerned that his hypotheses shall be consistent with hypotheses in other fields, such for example as the hypothesis of biological evolution?

In discussing these questions I shall consider chiefly that part of economics which was once the whole but has become a specialized branch, "economic theory" in the sense of theories of price, production, and distribution. In this connection I shall have occasion to refer to certain theories as "neo-classical." I shall mean by "neo-classical" most of the theories of such economists as Cannan, Carver, J. B. Clark, Ely, Knight, Fetter, Fisher, Laughlin, Marshall, Pigou, Seager, Seligman, Taussig, Taylor, Wicksteed, Young and, with one important doctrinal exception, Davenport. I propose to consider briefly how the following topics might be treated from a natural science point of view: (1) standards of social policy; (2) the marginal utility theory and the ultimate determinants of price; (3) the law of supply and demand; (4) the productivity theory; (5) Say's law that real supply is real demand; (6) theory of taxation.

The suggestion that economists should adopt a natural science viewpoint is certainly not new. But there is the possibility that natural science method has not been read aright by the founders of economics. Moreover, much has happened in the field of science since the main outlines of neo-classical theory were laid out by the classicists. Evolutionary biology and geology have developed. Psychology has expanded its domain from perception, memory, and imagination to the behavior of the individual organism as a whole. And finally the subject-matter of economic theory, our system of prices, production, and distribution has been changed and is being changed by an industrial revolution that was scarcely begun in 1776, and that was only well under way in this country a century later.

Whether economics is a natural science, is, I think, a question not so much of achievement as of method and of relationship to other fields. I cannot pause to discuss the nature of scientific method and the relationships among the sciences at length.[1] I shall offer only three comments which are especially pertinent here.

(1) It is a prime object of natural science to formulate hypotheses, or descriptive generalizations *relevant* to the subject-matter of science, which are capable of empirical test. Scientific theories should not be mere truisms, or be so abstract as to be incapable of factual disproof. They should be useful in enabling one to say *a priori* what he expects to find under certain specific conditions, within the limits of accuracy of the generalization, and they should be such as to be invalidated if he does not find *empirically* what he expected to find *a priori*. Moreover, a scientific hypothesis should be so formulated as to fit existing data. The economist will do well to put generalizations about price and cost into the terms that are used in keeping business records—into accounting terms. And his theory of wealth should reckon with existing legal categories.

(2) As a natural science economics is first of all a social science. It is not primarily concerned with individual behavior. It presumably deals with certain aspects of our social system not sharply marked off from the aspects with which other social sciences deal. Secondly, economics is a biological science—it studies group relationships among living organisms of the genus *homo sapiens*. As such its generalizations must somehow make peace with the general theory of biological evolution. They can only be true of and relevant to some definitely specified periods of social evolution. For some specifiable antecedent period in human or pre-human evolution they should be either untrue or irrelevant. Any economic generalization, if scientific, aspires only to historical validity. And the historical limits of its validity should be carefully specified.

(3) The biological sciences do not confine themselves to description. They are normative as well as descriptive. Pathology deals with abnormality. Physiology is concerned about the functions of organs. Function is a normative, not a descriptive category. Social pathology and the functions of elements in our economic system are properly the concern of economists. But it is very important to accurate thinking that we should not confuse a statement of what is with a statement of what ought to be.

With these brief comments on scientific method and the relationships among the sciences in mind, let us consider the topics I have listed.

[1] For a further elaboration of the natural science point of view in the anthropological studies, see "Psychology and the Natural Science Point of View," *Psychological Review*, Nov., 1930, pp. 461-87.

I. *Standards of social policy.* As an evolutionist I should expect to find no sharp line between the neo-classicists and those who take a natural science view of economics. Many classicists have treated the efficient and economical use of human effort and social wealth in the production of goods and services as the main objective of our economic system. Natural science offers, it seems to me, not a conflicting view here, but the possibility of defining this objective empirically, and of measuring the performance of our economic system statistically. Fisher has made a careful formulation of this objective in empirical terminology.[2] He has accurately adhered to the accountant's distinction between real and nominal accounts, between social wealth and social income or production. And he defines social wealth and income in terms of a consolidation of individual accounts. He is careful to state that there are certain ultimate items which do not cancel out. These include ultimate equities in tangible assets, consumer benefits, labor sacrifice, foregone immediate consumption. The selection of these as ultimates involves passing judgment on our economic system. It is equivalent to asserting that the interests of the consumer, laborer, and ultimate property holder are the ends of economic organization, and that business profits are a means thereto, and not conversely.

King has offered us statistical measures of our national wealth and income,[3] and in doing so has made certain amendments of definition. King has also attempted to deflate his income estimates to show the physical volume of income or production. The Stewart-Day-Thomas indexes measure a part of this production more directly, and their technique can be applied to other parts of the production field. These techniques can also be used to show the physical volume of wealth and labor, whose services are required in production. We should shortly be able to measure approximately the general efficiency of our economic system in achieving the neo-classical ideal.

While these measurements are by no means perfect—production includes some things that perhaps should class as illth—they can point the way to many possible improvements in our economic system; and as our system improves our measures will improve also.

II. *The marginal utility theory and the ultimate determinants of price.* For purposes of appraisal it seems well to consider the consumer as ultimate and the business enterprise as intermediate. But when the neo-classicist makes consumers' choice ultimate in his description, or explanation of actual price determination, he flies in the face of the facts.

[2] Irving Fisher, *Nature of Capital and Income*, 1906, esp. chaps. 6 and 9.

[3] W. I. King, *Wealth and Income of the People of the United States*, 1915, *National Income and its Purchasing Power*, 1930, and joint author of *Income in the United States*, 1922.

He has confused description and appraisal here. Consumers' choices are effects as well as causes of business policy or it would not pay to advertise. Physicists long ago left the search for ultimate determinants or ultimate causes to metaphysics. Economists would do well to follow suit. Moreover, the neo-classicist is in an embarrassing position. Psychology has expanded its domain—the theory of choice is now distinctly the concern of psychology. The marginal utility theory under any of its names is a psychological theory of choice which conflicts with Gestalt psychology and with the Dewey variety of behaviorism. Moreover, there is no empirical basis for the theory. Marginal *desirednesses* can only be measured objectively through the price offers they are supposed to explain. Finally the alleged law of diminishing utility is not needed to explain the failure of some to buy as much of a good after a price increase as before, when the price increase would require giving up other things if they did, or to explain the honorific value of certain scarce objects.

There is a definite issue here between the neo-classical and the natural science formulations of the price problem—between those who "would know why the price of pig is something big" in terms of ultimate determinants at the time and those who would investigate the historical "behavior of prices." In place of a static, quasi-psychological, tautological theory of the factors behind demand, the natural science view would substitute specific socio-historical theories. Veblen's *Theory of the Leisure Class* offers some interesting explanations of changes in consumers' demand. We can state the problem statistically in terms of changing family budgets. Sales campaigns, public education in hygiene and home economics, changes in household technology, the rise of feminism, are sample historical factors to be reckoned with.

And for the theory that the supply of labor is to be explained by the varying amounts of labor each individual will supply at varying wage rates, the natural science viewpoint requires a similar substitution of specific socio-historical theories. The factory-system has standardized the working time. That time has beeen affected by business policy, and often by trade-union or government policy. The fatigue and routine of factory employment have tended to bring limitations of working time in the interests of public safety and health.

III. *The law of supply and demand.* Neo-classical theory has considered chiefly two types of markets; (1) a perfect competitive market, in which demand and supply are functions of a single variable, the current price of the commodity in question, in which competition serves as a regulative agency, and in which price is uniquely determined; (2) a perfect monopoly on one side of a market and competition on the other. The "law of supply and demand," accurately stated, applies only to

case (1); the "law of monopoly price" to the second case. Both laws are definitely historical. They are not relevant to interpreting the facts of many primitive societies. Nor does any actual present market conform to the conditions under which either is true, except as a rough approximation. Thus, under perfect competition there could be no widespread unemployment, no important differences of bargaining power, no incentive to sales effort, no significant influence of price policy on market price.

Both laws deal with the conditions of static equilibrium in an isolated time interval. The empirical data for such a study are necessarily confined to a single pair of observations of price and amount marketed—no basis for scientific generalization is afforded, unless we take a dynamic view, unless we add to the two variables quantity and price a third variable, time, and concern ourselves with the historical behavior of prices. When we do, there are striking differences between different markets—also between different times. Mills has shown that commodity price variability exhibits a secular decline, temporarily reversed by the war.[4] While for static purposes competitive supply and demand are coördinate—I have pointed out that dynamically they are not[5]—in peace time supply changes commonly are more important than demand changes in producing changes of commodity prices.

The organized commodity and security exchanges approximate perfect markets in many respects. Price fluctuates from moment to moment with changing conditions of demand and supply. For certain crops it has been possible to construct statistical demand schedules on an annual basis using yearly average prices. The law of supply and demand is useful as an approximation here.

The price quotations of most manufactured commodities are "producer prices." These quotations often do not vary at all for months at a time, though one may suspect special concessions from the quoted price before an official cut. But hour-to-hour changes in demand and supply presumably do not cause price variations here. The short-time changes in supply and demand are offset by business policy. The law of supply and demand may here describe only the swings of, say, a 12 or 24 months' moving average of prices.

The law of supply and demand conceives demand and supply as functions of a single price. But every market competes with the future of itself. An *expected* rise or fall of prices may cause changes in present demand and supply and hence a rise or fall of *present* prices. There is, as Taussig has pointed out, a measure of indeterminacy in competitive

[4] F. C. Mills, *Behavior of Prices*, 1927, chap. 3 and *Recent Economic Changes*, 1929, chap. 9.

[5] *Journal of American Statistical Assoc. Proceedings*, Mar., 1930, p. 168.

price determination,[6] important for price fixing during the war and important also for understanding certain cumulative speculative swings of the market. This indeterminacy helps to make the prices on organized exchanges among the least stable elements in our price system, in spite of the stabilizing function of the specialist in speculation.

The law of supply and demand treats the quantity of a commodity or service passing through a market as capable of measurement on a single scale, pounds, bushels, or labor-hours. Recent developments in business price and wage policy have taken account of what J. M. Clark calls the "different dimensions" of an economic good.[7] We have incentive schemes for wage payment and two- and three-part utility rates. Both the quantity marketed and the money remuneration are affected by the form in which the price is stated, and that form may be altered by private or public policy. The occurrence of "economic goods" with more than one "dimension" is presumably more widespread than is yet recognized in our price system.

Many actual markets do not closely approximate either the perfect competitive market or the perfect one-sided monopoly of neo-classical theory. They are mixtures of monopoly and competition and not necessarily like either of the polar ideals. Such a market as the labor market or the market for a good sold in several grades and under a variety of brands may perhaps best be conceived as consisting of a group of little markets, each a monopoly, but each in competition with the others, subject to a certain frictional resistance in shifting from one market to another. In such a case differences in bargaining power are important, differences in ability to wait or to enter an alternative transaction, differences in market information and in the ability to employ a marketing specialist or a lawyer.

So long as we conceive of competition as competition purely on a price basis, it may be a fairly adequate regulative agency. Most competition, however, involves qualitative differences in the commodity and differences in terms of sale. Slichter has analyzed the inadequacy of competition as a regulative agency, under these complex conditions.[8] The consumer may be unable to judge quality, may take price as a criterion of quality. And in the labor market competition may deteriorate the level of conditions of labor, the plane of competition, if we rely solely on it as our regulative agency.

Furthermore, in a market consisting of a group of competing monopolies, offerings and takings at the going price may not be equal. Unem-

[6] F. W. Taussig, "Is Market Price Determinate?" *Quart. Jour. Econ.*, vol. 35, pp. 394-411.

[7] J. M. Clark, *Overhead Costs*, 1923, chap. 10.

[8] S. H. Slichter in the *Trend of Economics*, 1924, "Organization and Control of Economic Activity."

ployment may be a permanent condition, though its volume may vary.

Again, in an imperfect market there is an incentive to exert sales effort, directed both toward the distribution of certain market information, and toward developing consumers' tastes. Indeed, sales effort may be an essential condition of competitive business survival.

And finally, in an imperfect market business or public policy may be an important influence in fixing prices. Thus wage rates have been known to rise in the face of a stable labor supply and a declining demand. I can only pause to mention the increasing importance of price policy in connection with new monopoly elements in our economic organization, the rise of trusts, trade unions, and trade ethics, the development of public utility regulation, the growing practice of branding goods and of resale price maintenance.

It seems fair to say that the Industrial Revolution and large-scale enterprise have greatly increased the significance of four important exceptions to the law of supply and demand: disparity in bargaining power, unemployment, sales effort, and price policy.

IV. *The marginal productivity theory.* The marginal productivity theory assigns to each of us a portion of the social income equal to what we and our property have contributed to the social income, reckoned on the basis of the marginal productivities of the several "factors" or ingredients contributed. It suggests that natural law provides a scheme of social cost accounting and incentive payments, such that there is an accurate allocation of social costs against social revenues, and such that profits are a managerial bonus to society's functional foreman—a bonus for producing only what is socially worth the cost, for producing it as efficiently as possible, and for improving the technique of production. No general manager for society is needed, competition selects the most efficient functional foremen and directs their energies into the socially most desirable channels. As a statement of an ideal system of social organization there is much to be said for this theory.

But as a description of our present order the case for the marginal productivity theory is not so clear. In the course of social evolution (in which governmental policy has played a part) we have developed a complex scheme of property and contract rights and rules of association, a currency system, the institutions of specialization, trade and production for sale, a complex of business organizations and of markets, a system of prices. These institutions so organize our society that most of us are compelled to contribute to the social income in order to share in it. In the rough, our economic system conforms to the competitive ideal. But only in the rough. As a description of our present order the productivity theory is altogether too simple to be accurate—so simple that it can throw little light upon those phases of our economic

system which give rise to economic problems. If "productivity" is the rule, a natural science theory of our economic system that is relevant to current problems must be chiefly concerned with the exceptions to that rule, with understanding the causes of economic waste and inefficiency in our present system, the phases of our present system that create financial incentives to private policies that conflict with social policy. And if we are to test the marginal productivity hypothesis empirically, we must be concerned with the types of accounting and statistical information that are needed to measure the performance of various units in our economic system and to compare performance with remuneration.

The productivity theory cannot be both a statement of what ought to be and a statement of what is, if it is to be a useful scientific hypothesis for public policy. I propose to consider briefly some exceptions to the productivity theory considered as a scientific description of what is, exceptions which are apparent even on the basis of our present inadequate information. The marginal productivity theory involves three assumptions that I wish to call in question. (1) It presupposes perfect competitive markets. (2) It treats social wealth as hired by entrepreneurs from the ultimate equity holders on short-term contracts, much as wage labor is hired. (3) It assumes a static unchanging legal system, in which there is no ambiguity or overlapping and conflict of property rights. The correlative theory of profits as in part wages of management assumes individual or entrepreneurial enterprise.

Under the conditions assumed the entrepreneur might wisely confine his efforts to accurate anticipation of demand and to technological efficiency in the use of labor and social wealth. But none of the three assumptions of the productivity theory holds. As Veblen,[9] Davenport,[10] and certain socialists have pointed out, in our competitive society making money does not necessarily involve making goods. It is by no means clear that sales effort contributes to social income in proportion to its social cost, though it may pay in terms of private profits. Legal effort, lobbying, bribery, and adulteration of goods are often profitable. Labor cost can be economized by shrewd bargaining as well as by economical use of labor. Business connections, strategic situations in the economic system, and inside information are of paramount importance to successful business. Large fortunes have been made in high finance and racketeering. For purposes of accurate description we must substitute a profitivity theory for the marginal productivity theory.

In treating social wealth as hired by entrepreneurs on short-term contracts, the productivity theory has overlooked an important accounting distinction. Most wage labor and material costs are directly assignable

[9] Thorstein Veblen, *Place of Science in Modern Civilization,* 1919, pp. 279-323.
[10] H. J. Davenport, *Economics of Enterprise,* 1913, esp. chap. 9.

to the output of a given accounting period. Overhead costs of which capital costs are an important element are not so assignable. Under the English domestic system most business costs were direct. The Industrial Revolution has greatly increased the business importance of overhead. With the rise of overhead costs in the latter nineteenth century in the United States, free competition inevitably became cutthroat competition. More recently in the fields where large-scale methods are dominant, business has developed various restraints on free competition, pools, trusts, trade ethics, established channels of trade, brand and patent monopolies, communities of interest, etc. Bell has analyzed this situation admirably.[11] These restraints are essential to business stability, but they diminish the effectiveness of competition as a regulative agency. Incidentally, they involve restriction of output, producing at less than capacity a good deal of the time, and as J. M. Clark has noted,[12] the marginal productivity (profitivity) of a plant operating at less than capacity is zero. Marginal profitivity in manufacturing and public utilities evidently does not ordinarily determine factorial shares.

When a manufacturer puts a price upon his output, he includes in that price a charge to cover his overhead. For him the cost is partly direct or avoidable, partly overhead or unavoidable. For the purchaser the entire cost of the purchase may be direct. There is a conversion in the form of costs from what is overhead for the manufacturer to what is direct to the purchaser. There is a similar conversion between laborer and employer. To the laborer his cost of living is largely overhead or unavoidable—to the employer wage cost is largely direct. J. M. Clark and I have called attention to the importance and prevalence of these direct-overhead cost conversions in modern society.[13] They give the purchaser a profit incentive to curtail purchases when socially a different policy might pay. I can only pause to mention the fundamental importance of the theory of direct-overhead cost conversions for understanding such problems as the business cycle, the behavior of the labor market, public utility rates, and the functioning of agriculture and the coal industry.

In the absence of adequate market information intelligently used, a long production period may give rise to cycles of over- and under-production—the hog-cycle, the cattle-cycle, the apple-cycle, the petroleum-cycle, and less clearly a cycle in bituminous coal.

The productivity theory presupposes an absence of ambiguity in our legal system—that there is adequate recourse at law for any party to col-

[11] Spurgeon Bell, "Fixed Costs and Market Price," *Quart. Jour. Econ.*, vol. 32, pp. 507-24.

[12] J. M. Clark, *op. cit.*, chap. 23.

[13] J. M. Clark, *op. cit.*, chapters 2, 18, 19; Copeland, *Trend of Economics*, 1924, "Communities of Economic Interest and the Price System," pp. 117, 136-7.

lect from a second party all pecuniary gains to the second party for which the first party is responsible and to collect full indemnification from the second party for pecuniary losses incurred by the first party through actions of the second. In a complex and changing society we can hardly expect such perfection. There are many cases of what I have called *de facto* torts,[14] damages for which no legal remedy is now available. In the "wild animal" theory of mineral rights we find an incentive to wasteful extraction of petroleum. Zoning ordinances imperfectly eliminate *de facto* torts in urban realty. The depreciation of a laborer is not necessarily a cost to his employer. Many lease contracts, as Pigou has noted, provide inadequately against depreciation or depletion of leased property. Wherever there are *de facto* torts there is a profitivity incentive not to take full account of social cost.

The theory that profit (including the monopoly profit derived from a patent) offers a socially efficient managerial incentive payment is obviously more applicable to the period before the Industrial Revolution than to the present era of large-scale corporate enterprise. The allocation of corporate profits to minority stockholders not only means that such profits are not received by management, it has also facilitated the capitalization of monopoly profits into the valuation on which public utilities have a constitutional right not to be deprived of a reasonable return. In public utilities (and perhaps some other lines) we are beginning to get the accounting information necessary to measure economic performance. And for public utilities consequently we are beginning to face the problem of reconstructing the institution of profits into a managerial incentive payment that shall go to management and that shall more accurately reflect economic performance.[15] But the problem of getting accurate accounting information and of remodeling the institution of profits is clearly not confined to the public utility field. One-half of our national income is now produced by non-entrepreneurial forms of enterprise.

V. *Say's law.* The theory that real supply is real demand and that the value in exchange of a commodity is independent of the exchange value of money is a reaction to mercantilism that goes too far. It tends to minimize the rôle of money in the national wealth and welfare. Yet oddly enough it leads to overstatement of the rôle of money in the business cycle and the price level. If we allow for the time it takes money to circulate, it is clear that supply today means demand not today but at some later time. Say's law is not precisely true for short periods. Recognizing this, and recognizing also that for purposes of analyzing the

[14] *Trend of Economics*, pp. 110, 135.

[15] *Cf.* the *Bauer-Bonbright Plan*, New York State Legislative Doc. No. 75, 1930, p. 411 ff.

functioning of our pecuniary society the consumer, the worker, and the saver are no more ultimate in the nexus of prices than the business enterprise, Mitchell in his ***Business Cycles*** traces the cumulative expansion of incomes and expenditures of businesses, families, and governments during recovery and prosperity and the cumulative contraction of incomes during recession. The mercantilists were right at least to the extent that a favorable change in the balance of trade may favor business recovery or promote business expansion and so increase the national income. Historically we may fairly call Mitchell's theory of business cycles the first triumph of the empirical natural science method in the study of the behavior of prices and production.

The corollary of Say's law, that value in exchange is independent of the exchange value of money, has helped to sustain, in the face of conflicting facts, purely monetary theories of the level of commodity prices —the various quantity and commodity theories. We know that the relations between M and P are complicated by V and T. We know that for short periods the equation of exchange is not precisely true—the shorter the period, the less accurate the equation. We know that in seasonal movements and trend the variations of V and T do not offset each other. The offset in cyclical movements is probably only a rough approximation. We know that seasonally M is elastic, adjusting itself to the money work to be done. I have shown elsewhere that a large proportion of money work is created by transactions that cannot well be treated as P x T, taxes, insurance premiums, etc., and that commodity price transactions account for but a fraction of money work.[16] We know that the connection between gold and prices in the United States today is extremely tenuous, bank reserves are one factor in interest rates, interest rates are one factor in price changes. The behavior of the level of commodity prices from late 1925 to 1929 is difficult to account for on the basis of monetary and credit conditions.[17] Specific factors affecting specific commodities appear to account for this period satisfactorily. The natural science point of view suggests that we should define the price level in the way in which it is measured, as a weighted average of a specified set of prices, and that we should deal with it for what it is—a mere average of prices. There may at times be a pervasive common influence on prices such as a credit stringency, or a cumulative movement of prices. At times special factors working on special prices may be of paramount importance.

VI. *Taxation.* The neo-classical theory of value and cost applies to prices but not to taxes. It distinguishes taxes sharply from prices. Governmental accounting lies outside the neo-classical scheme of social

[16] "Money, Trade and Prices," *Quart. Jour. Econ.*, vol. 43, pp. 648-666.

[17] *Journal of American Statistical Association, Proceedings*, Mar., 1930, p. 164-9.

cost accounting, although government fiscal policy makes contact with our so-called natural economic system at many points and through these contacts it necessarily directs the functioning of that economic system into one channel or another.

When we revise the theory of price and cost to take account of overhead costs and real and nominal accounts, the theory is broad enough to include the field of government accounting as well as business accounting —not as a description of what is, but as a statement of what ought to be. It is time our governments kept more businesslike accounts. Accurate distinction between capital and revenue accounts would conduce to wiser fiscal policy. The levying of taxes is essentially a cost accounting problem—the problem of distributing social overhead. Social overhead can often be directly assigned to a given class of beneficiaries, although within this class it must be distributed by pro-rating on some arbitrary basis. But the application of cost accounting methods to taxation has not gone very far as yet. Thus, we are still far from making the users of our highways support our highway systems. As a class they are responsible for highway costs, though the allocation of responsibility within this class can only be approximate. The adoption of cost accounting procedure by the government in such cases as this would do much to improve the economical functioning of our social system.

In this hurried review of developments in the theory of prices, production, and distribution—developments in the direction of adopting a natural science point of view—we have seen that a reformulation of the price problem has been in process. Natural science does not concern itself with ultimate determinants, it studies the behavior of prices and the unending inciaence of price changes. Much of the structure of neo-classical theory remains, but its applications need to be carefully delimited,—a clear distinction must be drawn between its use as a description of the present order and its formulation of a Utopia, and as a description it must be taken as a first and very rough approximation. The law of supply and demand describes many of the movements of some markets fairly well, in other markets it does not apply to hourly, daily, and weekly movements, and in yet others like the labor market and the markets for branded goods it offers little more than a convenient classification of factors and policies affecting price into supply and demand factors. The productivity theory, as a description, describes in the rough such coördination of specialists as existing institutions achieve, but it needs to be supplemented if we are to understand the conflicts of interests and the economic waste that characterize our present system. A vigorous government policy directed toward realizing the neo-classical cost-accounting Utopia would probably resemble Russian communism more than it would laissez faire. The newer phases of economic theory

aim to take account of certain features of society that the Industrial Revolution has made prominent, disparity in bargaining power, sales effort, a variety of restraints on competition, overhead costs, changes and ambiguities in our legal system. It rejects Say's law for short-time movements of price and production and substitutes the cumulative expansion and contraction of incomes of business, family, and government. And it finds a variety of factors influencing the price level. Again it would extend the scheme of social cost accounting suggested by the older theory to include government fiscal policy. To the fuller working out of this newer theory we shall need vastly better accounting and statistical information than is available today.

Neo-classical economic theory is value and distribution theory. From a natural science view hypotheses concerning industrial government or the organization of our railroad system are economic theories as truly as hypotheses concerning variations in price, production and distribution.

The neo-classical theory of economics offers, on the whole, somewhat scanty contacts with other social sciences. For a natural science theory there are no sharp lines between economics, political science, and sociology; and the historical approach is common to all of them. The legal system, government organization and policy, social institutions, market organization, the organization and policy of the business enterprise and the trade union are all involved in understanding the behavior of prices and changes in the amount of distribution of wealth and income. Economic theory is necessarily only a special phase of social theory.

Morris A. Copeland

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DOES INSTITUTIONALISM COMPLEMENT OR COMPETE WITH "ORTHODOX ECONOMICS"?

Paper presented at Round Table Conference, December 30, 1930, at forty-third annual meeting of the American Economic Association, Cleveland, Ohio.

The concept of institutionalism lacks precision and has been misleadingly identified with other new methods of approach in economics. Examples of institutional work are suggested. Institutionalism needs a coördinating body of theory. No inherent reason why orthodox economics should not supply this framework, but its emphasis has probably tended to discourage peculiarly institutional work. As a contribution towards delimiting economic aspects of behavior and economically relevant institutions, supplying workable categories of thought, and suggesting the forms in which an institutionalist economic theory might ultimately be couched, the work of Cannan, Max Weber and Sombart is especially significant.

I am not concerned to discuss the advantages of the institutional approach as alternative to any other. I accept the claim that a study of the economic significance of social institutions must greatly enrich economic knowledge. Accordingly, I propose firstly to ask why the institutionalist propaganda that has been prominent in the economic discussion of the past fifteen years in this country, has not been more productive of concrete works and changes in the curricula of our graduate schools. Secondly, I propose to discuss some of the problems to be faced if institutionalism is to develop from the stage of brilliant promise to that of solid achievement.

In dealing with the reasons for the slow realization of the promise of institutionalism, I must give at least passing mention to the great advantage necessarily possessed by the theories which held and even now hold the field. Were the institutionalist movement free from any special disability and possessed of the strongest vitality, time would be needed for the conversion of those trained in another point of view and for these converts to reach positions of eminence whence they could in turn influence teaching curricula. More studies illustrative of the fruitfulness of the new method might, however, have been expected without so long a lag. The nature of the appeal of institutionalism doubtless offers a partial explanation of the lack of any great body of such work. Those who delight in balanced and coherent systems and in the refinements of mathematical analysis are unlikely to be seduced from the precision and intellectual elegance of classical economics in its purest mathematical form by an institutional economics whose principal claim is a rugged realism.

Such difficulties as these would, however, stand in the path of any new approach. It seems to me that institutionalism has encountered further and peculiar difficulties. Foremost among these I would place the vagueness of the concept of institutionalism itself. The books and papers of those generally held to be institutionalists cannot be said to elucidate the essential contribution of the new approach. Discussion

with those from whom it appears to have sprung, more often than not elicits a shy but baffling denial not only of paternity but also of relationship. Because of this uncertainty the institutional approach has often been identified with a number of more or less rival, and often conflicting points of view. Thus, for example, it is only slowly becoming clear that the institutional approach is not identical with the quantitative approach, with welfare economics or with the adoption of any particular view of psychology.

The linking of institutionalism with the quantitative method is doubtless due mainly to the identification of Mitchell, the professed institutionalist, with Mitchell, the champion and outstanding practitioner of quantitative economics. It is true that quantitative workers and institutionalists are impelled by a common desire for greater realism in economics. But, while the former may pursue realism either in the expression with greater precision of the theories of the neo-classical economists, or in the quantitative description of interrelations not hitherto embraced within this system, the institutionalist is mainly interested in these latter relations, particularly in so far as they relate to "institutions." But the institutionalist cannot presumably confine himself, as must the quantitative economist, to those aspects which are amenable to measurement, and those concerning which statistics are now available or could be obtained. Thus, while there is no inherent conflict between the points of view, they are far from identical.

The error involved in the identification of the institutional approach with welfare economics is, I think, also becoming evident. Some of those generally regarded as leaders of institutionalist thought have spoken from time to time as though this identity existed in spite of the weighty evidence to the contrary in the works of Pigou, who has attempted, more thoroughly than any other person, to develop a science of economic welfare. Pigou's work indicates that welfare can be made the end of economic investigation in a system which is fundamentally non-institutional, and which uses throughout the tools and categories hitherto characteristic of the neo-classical approach. Interest in welfare, rather than in the conditions favorable to an optimum volume of production, or to the maintenance of equilibrium, does not inevitably require any new concept of economic relationships. The study of institutions can be made by the most "wert-frei" economist; and we should not be misled by the accident that many institutionalists are motivated by a desire for more extensive social control of economic organization. This lack of identity with welfare economics is indeed fortunate for the future of institutionalism; for it thus escapes the necessity of refuting attacks upon a supposed reintroduction of value judgments into economics.[1]

[1] Thus, part of Morganstern's attack upon the institutional approach in the *Festschrift* in honor of Guiseppe Prato is beside the point. For another interesting

Again, although the rise of institutionalism was considerably influenced by the growing dissatisfaction with the supposed hedonistic basis of neo-classical economics, we are coming to see that the rejection of this particular view of psychology does not necessarily involve the adoption of any completely new method of approach to economics. The adoption of Wicksteed's careful analysis of the "economic relationship" in place of the "economic motive" as the fundamental preoccupation of economic science,[2] enables the neo-classical economist to face unmoved the claim that developments of contemporary psychology involve a revision of his entire method.

Institutionalism has thus suffered from the behavior of both its friends and its enemies in permitting a use of the term so loose as to embrace all revolts against Ricardian, Austrian, Marshallian, or Clarkian economics. The absence of any great amount of work of a clearly defined institutional character is no doubt in part attributable to this confusion.

Institutionalism can perhaps be defined, apart from any of these things, as a method of approach to economic problems in which prominent place is given to the interaction between social institutions on the one hand and economic relationships and the economic aspects of behavior on the other. It aims to present an orderly arrangement of economic phenomena in which institutions are elevated from the status of the exception or the footnote, and integrated with the main body of economics. This emphasis can take several forms. Veblen's work brilliantly illustrates its possibilities in the field of criticism. It may emerge in the form of genetic studies of the development of institutions. A superb example of this aspect of the institutional approach is furnished by Max Weber's study of the genesis of the capitalist system of organization,[3] in which he insists on the bureaucratic rationalist spirit as its essence and creative force, and explains its origin in terms of a prevailing religious ethic, which, having done its work, disappeared, leaving behind the rationalized way of life.

But the genetic approach is only one expression of the new emphasis. Equally significant are such studies as those of Wedgwood in England, on inheritance,[4] or J. M. Clark here, on overhead costs,[5] which examine the influence exerted in the economic field, over a relatively short period of time, by a legal or technological institution and endeavor to estimate its economic importance and ramifications. An even more ambitious ef-

German interpretation of the content and implications of institutionalism, see the article by E. Flügge in *Jahrbücher für Nationalökonomie und Statistik*, 1927, p. 337.

[2] *The Common Sense of Political Economy,* especially pp. 163-211.

[3] Max Weber, *The Protestant Ethic and the Spirit of Capitalism,* translated by Talcott Parsons.

[4] J. Wedgwood, *The Economics of Inheritance.*

[5] J. M. Clark, *The Economics of Overhead Costs.*

fort of this kind, but ranging over a longer period is Commons' attempt[6] to show the significance in the evolution of the economic world, of the decisions of the courts of law, which, by their selection of some practices as legal and their rejection of others, establish the limits within which, at any given time, the "economic man" can move. A third possible application of the institutionalist approach is likely to take the form in the future of an examination of certain typical economic bodies as they operate today, in terms of the economic functions they perform and the forms of organization adopted to carry out these functions. The forthcoming study of the corporation by Berle and Means promises to take this form. Finally the institutionalist approach may give rise to attempts to analyze a specific economic problem in terms of its institutional environment. Hamilton and Wright's study of the coal industry[7] is one of the best examples of this kind of attack.

Studies of these general types cannot fail to enrich economics by providing more precise and detailed information of economic phenomena and their interrelations. But if institutionalism is advanced as a means to the production of a series of generalizations concerning the economic aspects of social phenomena, which is seriously to compete with existing types of economic thought, there is yet another direction in which its exponents must apply their energies. It is urgently necessary that there shall be built up what Mitchell has termed "a framework within which all sorts of contributions may find their proper places."

But why, it may be asked, cannot the existing organons of economic theory be utilized? It is the greatest merit of what is called "orthodox economics" that it offers a framework of highly integrated categories; and, at first sight, it would seem easy to indicate various points on the existing body of economic doctrine at which studies bearing the undoubted stamp of the institutionalist emphasis might be grafted. Yet there is something ominous in the failure of Marshall's well-known statements regarding the superiority of the biological approach in economics,[8] to stimulate any marked developments along such lines among Cambridge economists. H. D. Henderson, in his *Supply and Demand* (the New Testament of the Cambridge School) has thrown into relief one possible line of development, by the sharp distinction which he draws between that part of economic theory (dealing with the apportionment of factors between the different uses) where relations are "clear and fundamental," and where theory claims to speak with a certain, and even a normative voice, and that part (dealing with the forces influencing the aggregate supplies of factors) where there are admittedly as yet no clear and cer-

[6] J. R. Commons, *The Legal Foundations of Capitalism.*

[7] W. Hamilton and H. Wright, *The Case of Bituminous Coal.*

[8] A. Marshall, *Collected Papers, Letters and Memoirs,* pp. 312-318.

tain economic laws possessing fundamental significance.[9] An attempt to complete the existing body of theory by the investigation of this latter field must have stimulated meditation upon the significance of institutional factors, and have necessitated an analytical framework in which institutions could occupy an important place. It is difficult to see how any explanation of the forces affecting the total supply of population available for economic activity, or of the total amount of material equipment could fail to give an important place to institutional factors.

But even in the field that Henderson regards as complete, it might have been expected that there would have been some workers, trained in orthodox schools, and more particularly in some variety of equilibrium economics, who would have cast an occasional glance at the contemporary economic world and have been struck by its persistent failure to attain equilibrium, however defined. Had this disparity led to a search for phenomena hitherto ignored, whose behavior would account for the observed persistence of disequilibrium, sooner or later there must have been revealed institutions calling for incorporation into the body of theory. On the other hand, the disparity between theory and reality might have been expected to stimulate some traditionally trained economist to subject to severe examination the assumptions of orthodox teaching, such as the prevalence of free competition, and by a study of its implications have been led to define the institutional structure which it necessarily implies. Such a definition would have pointed the way to a series of studies of contemporary institutions with the object of revealing the exact degree and nature of their departure from those implied in the assumption of competition.

Clearly there is no lack of ways in which attempts to express more precisely, or to extend, orthodox theory could have resulted in studies of the economic significance of social institutions. Yet, up to the present, little use has been made of these available stepping stones. The failure of "orthodox theory" to develop in this direction is in part due to an emphasis upon the discovery of laws of relationship or behavior which transcend any particular type of organizational complex, and which has diverted attention away from the analysis of the peculiar characteristics exhibited by specific systems. In part it may be due to a concentration upon forces making for equilibrium, rather than on those making for disequilibrium, or for a new and different equilibrium (a concentration attributable to the use of concepts which are derived from that of equilibrium). It may in part be due to psychological antipathy to embarking upon investigations likely to involve an important modification, if not an abandonment, of the existing integrating structure and a dislike of the inevitable period of uncertainty during which the

[9] H. D. Henderson, *Supply and Demand*, pp. 162-3.

higher synthesis is in process of emergence. Finally it may be due to lack of the courage required to desert the ranks of the white collar workers in the libraries of economics for the uncertain field where, in addition to logical consistency and a knowledge of economic doctrines, there is need for a knowledge of many aspects of social behavior, and for the patience and endurance to collect, classify, and interpret masses of data, obstinate to handle and apt to yield conclusions apparently insignificant in relation to the labor involved.

The fact that the existing organon of economic theory has failed to serve to any significant extent as a point of departure for institutional investigations suggests the possibility that a new type of theory is needed, and that the heavy costs of a break with tradition must be incurred. It is unfortunate that the reaction against neo-classical economics has taken the negative form of a claim that economic theory is useless, instead of the more positive form of suggestions for an economic theory that could replace the present prevailing systems. It may be objected that the attempt to develop such a theory is premature and may saddle the new movement with categories which may persist long after they have ceased to be useful. I venture to suggest that this danger is not so great as might be supposed. The very nature of the material that the institutional economist must study is in itself almost a guarantee against the tyranny of any categories of thought. Moreover its emphasis upon the study of change is likely to induce expression in such a form as will make possible constant reinterpretation of the relationships between the entities studied, in the light of a constantly increasing body of information regarding their nature.

If, therefore, it be argued that some integrating framework peculiar to institutionalism is necessary, efforts must be made to produce such a body of theory. In any case, the systematic economic discussion of institutions presupposes two fundamental advances. In the first place, it is essential to evolve some principle by which the more particularly economic aspects of phenomena can be marked off from those pertaining more especially to the other social sciences. The danger that faces institutionalism is that of a lack of focus. The recognition of the interdependence of economic phenomena and institutions, and phenomena and institutions of all other kinds is likely, unless we limit our field, to result in a diffusion of energy and in an output of innumerable studies of the manifold aspects of human activity which will be oriented by points of attack so diverse as seriously to hinder generalization or integration. Orthodox theory suggested a point of view from which to approach any problem, and a set of concepts with which to analyze it. Institutionalists who reject "orthodox theory" and possess no new series of concepts lack a point of attack or set of analytical tools.

Edwin Cannan is one of the few economists who has endeavored to construct a system of economic theory in a form especially suited to serve as a basis for the synthesis of institutional studies. Although he has produced little more than a skeleton, he has set out very clearly the specifically economic aspects of social behavior and suggested the particular problems that must be solved, if, for example, the fundamental economic problem of obtaining any kind of production in a world of supplies limited in relation to wants, is to be solved. Insisting that physical conditions call for some land, some labor and material equipment and an organization for deciding the form in which these are to be combined, he examines the possible ways in which supplies of the physically determined essential elements *could* be secured and allocated to different uses, and the various ways in which the decisions as to ends *could* be made. Treating the economic problem thus without reference to any prevailing system of organization, he is relatively free to consider how different institutional arrangements bear upon his problem.

Closely connected with the demarcation of the special field of economic study is that of defining an institution, and, more especially, an economically relevant institution. With tiresome iteration we hear the charge that contemporary orthodox theory is an explanation of the economic aspects of social life appropriate to the social institutions and forms of economic organization prevalent in the time of Ricardo. But we still await (a) a specification of the relevant institutions, (b) a description of the changes they have suffered since Ricardo's day, and (c) an analysis of the manner and degree in which these changes in form or function call for modification of our generalizations concerning economic sequences. Slichter in *The Trend of Economics*[10] gave a tentative specification, and Clark in *Social Control* analyzed the economic significance of some legal institutions. But these suggestive attempts have not yet been worked out in detail, and the concept of an institution seems still to sprawl between the generality of Mitchell's "socially prevalent habits which in any given group standardize the behavior of individual members,"[11] Hamilton's "property, competition and even pecuniary valuation itself,"[12] and the "commodity markets" of Edie.[13] Greater precision of so fundamental a category is essential to the avoidance of work at cross purposes. Without some agreement as to the nature of economically relevant institutions, our studies of the processes of change and the forces making for survival or adaptation, lack orientation. There is a need for working categories in order to form the

[10] R. G. Tugwell, editor, *The Trend of Economics*, p. 304 ff.
[11] *American Economic Review, Supplement*, March, 1918, p. 237.
[12] *American Economic Review, Supplement*, March, 1916, p. 165.
[13] *Quarterly Journal of Economics*, May, 1927, p. 418.

hypotheses that alone make research fruitful. I venture to suggest that in the absence of any categories of their own, institutionalists would obtain many suggestive hints from Max Weber's attempts to develop a series of concepts and categories for the treatment of social phenomena.

But institutionalists must hope that institutional economic theory will ultimately produce more than a clear definition of an institution and criteria for segregating the economic aspects of social organization, although neither of these tasks has yet been performed. We may hope ultimately to discover categories for characterizing the interrelationships of economic phenomena peculiar to different societies and thus prepare the way for generalizations concerning the various forms of social life comparable to those of the biologist concerning the forms of individual life. We have as yet no criteria appropriate to the classification of economic aspects of social life comparable to those used by the biologist for distinguishing plant from animal life, vertebrates from invertebrates or the viviparous from the oviparous. Attempts to characterize societies by reference to a quality so dominating and fundamental that it appears to determine the main types of relationship existing among the various parts, and the functions they perform, have been made, among others, by the economic historians. These efforts have evidenced themselves in the use of such terms as nomadic, settled, feudal, socialist or communistic societies, and in general in the characterization by economic historians of types of economic societies in their discussions of stages of development. But the criteria used as bases of classification hitherto, have received surprisingly little serious consideration and have not always been relevant to economic discussion.

Perhaps the efforts to characterize capitalist society have given rise, especially in the work of Weber and Sombart, to the most orderly and penetrating consideration of these problems. It is possible to take issue with Sombart's emphasis upon the spirit of the society as the all-powerful conditioning force, to challenge the specific content with which he endows the capitalist spirit, or to doubt the adequacy of his three criteria (the spirit, the technique and the form of organization) as dimensions in terms of which to describe and classify societies. It is disconcerting to find so little attention paid to the methodological implications of his work.

The extent to which institutionalism will in future be regarded as a rival to so-called orthodox economics will, I submit, depend in large measure upon how successfully institutional economists tackle their methodological problems. To this end, more progress is likely to be made by a thorough-going analysis of the potentialities of the new approach, than by a reiteration of the shortcomings of the old.

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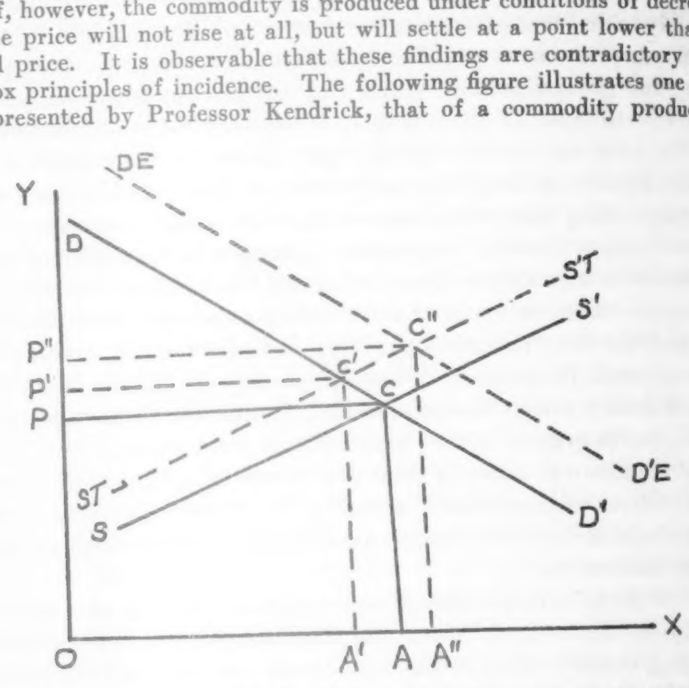
COMMUNICATIONS

The Incidence of the Gasoline Tax

In the article, "Public Expenditure and Tax Incidence,"[1] Professor Kendrick argues that the purposes for which the revenue is expended may affect the incidence of a tax. If the expenditures of the revenue cause an expansion of the market for the commodity, and if the commodity is produced under conditions of increasing cost, the price will rise by more than the amount of the tax. If, however, the commodity is produced under conditions of decreasing cost, the price will not rise at all, but will settle at a point lower than the original price. It is observable that these findings are contradictory to the orthodox principles of incidence. The following figure illustrates one of the cases presented by Professor Kendrick, that of a commodity produced at



increasing cost. The case involved in a commodity produced at decreasing cost may be similarly illustrated.

The supply and demand curves are represented by SS′ and DD′. Before the tax becomes effective OA units of gasoline will sell at OP cents per unit. With the levy of the tax, according to the usual analysis, the supply curve (immediately) shifts to ST S′T. The demand curve remains unchanged and so the new price becomes OP′ and the quantity salable at it, OA′. But it is argued that the new highways resulting from the expenditure of the new revenues will bring about an expansion of the market for gasoline. The new demand curve will move out to DE D′E. Hence there will be a new price equilibrium at C″ and a new quantity equilibrium at OA″. Therefore, the price will rise by an amount greater than the tax.

This ingenious analysis, however, involves some confusion respecting the time element. On the one hand, when the tax becomes effective, the supply curve, under the assumption of frictionless competition, instantly shifts to

[1] American Economic Review, June, 1930.

ST S′T. The movement of the equilibrium from C to C′ is timeless. But on the other hand, no changes will occur in the demand schedule until the new highways become available. The position of the demand curve, for the time being, remains unchanged. It may not move for years. But as the improvements come into use, this curve shifts out to a new position, DE D′E. This movement is timely or historical. The establishment of the equilibrium at C″ is not contemporary with the equilibrium at C and C′. Regardless of the alleged purposes of the tax or the uses to which the proceeds will be applied, the equilibrium, for the time being, remains at C′. And in the meantime the incidence of the tax is unaffected by the prospective expenditures. Similarly it can be shown that the same situation prevails in respect to a case involving production at decreasing cost.

Eventually, perhaps, there will be improved highways and a larger market for gasoline. There will be no necessary equivalence, however, between these phenomena and the tax. They will be possible results of the levy; but it is not conceivable that they will enable past, current, or future payers to shift the tax onto any one else. Each class of gasoline consumers bears its own burden.

H. G. Hendricks

Franklin College

The Gasoline Tax: A Reply

Professor Hendricks states my argument fairly and sees its bearing on orthodox incidence theory clearly. Likewise he is correct in his interpretation of the time variation between the movements of the two curves. The supply curve moves quickly on the imposition of the tax. The demand curve moves slowly, for it must await improvements in the highway system.

The issue is the effect of this time variation on the incidence of the tax. Does the fact that the movement of the demand curve is "timely or historical" mean that the incidence of the tax is not affected by this movement?

Professor Hendricks argues that a movement of the demand curve is a possible result of the tax but that it will not enable past, current or future payers of the tax to shift it. To him the fact that the road improvement and consequent expansion of the market for gasoline occur some months or years after the payment of the gasoline tax funds on which these phenomena depend is conclusive evidence that the incidence of the tax on gasoline is not thereby affected.

Continuing the gasoline tax illustration, this argument, in my view, is valid only when applied to those payments made between the time of imposition of the tax and the appearance of a change in the demand curve for gasoline due to improved roads financed by revenue from this tax. Clearly in this interval the demand curve has not been affected and so cannot affect the incidence of the tax. But once this period is past a different situation obtains. The demand curve for gasoline is being affected as dollars of gasoline tax funds are being spent on the roads. The fact that the dollars of gasoline tax money paid today do not appear in the form of improved roads until some months later has no bearing on the matter of incidence. Other dollars of gasoline tax money paid months ago are appearing in the form of improved roads today. This tax and this direction of expenditure constitute a process and should be interpreted as a process. In this process the test of

incidence is price, not time, of expenditure. If the price of gasoline is different from what it would be if other direction of expenditure had been chosen, the incidence of the tax on gasoline has been affected.

M. Slade Kendrick

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Value Changes: A Comment

Mr. Whittlesey's article[1] on value changes seems to add confusion rather than clarity to the analysis of wealth and its production. A careful analysis of his statements shows that he does not properly apply the distinction between social and private wealth. Mr. Whittlesey seems quite erroneously to regard an increase in the total exchange value of a product possessed by an individual, as in the cases of spices and toothpaste, as an increase in wealth. Obviously the increase in the total exchange value of such products in relation to the value of the other goods in the community represents no increase in the total community wealth. When we are speaking of the production of time, form, and place values are we not referring to the creation of social and not individual wealth?

Furthermore, the ordinary definition of wealth production as the creation of time, form, and place values is usually applied to the case of goods consciously produced by man. Are we to include under this definition such objects as Al Smith hats and Babe Ruth baseballs which do not derive their value from the ordinary course of production but from the unusual condition of scarcity?

Let us look into the examples offered. Mr. Whittlesey's example of a going-concern having more value than its parts refers to the case of a monopoly position. According to economic theory, as ordinarily taught, the firm on the margin has no going-concern value above the cost of bringing it together. If it has more value as a going-concern it obviously enjoys something of a monopoly position. A decreased supply of spices and enhanced prices for toothpaste are surely cases of increased total exchange value in the possession of individuals, not cases of increased social wealth in the possession of the community. Lastly Mr. Whittlesey adds unusual hats and balls. Quite plainly these two cases do not involve any question of time, form, and place utility production. Are these not merely cases of scarcity value which economists never intended to include under their definition of time, form, and place value changes? To be sure, these two cases have something akin to what may be called prestige or scarcity value, but we cannot speak of producing prestige value in the same way that we can speak of producing time, form, and place value. The examples of prestige value given above simply acquired their prestige characteristics apart from man's consciously directed productive process.

Mr. Whittlesey also confuses the importance of value arising under monopoly and scarcity conditions and value arising under competive conditions. The processes leading to the creation of social wealth and those leading to the creation of private wealth may be quite antipathetic. In our classification of wealth changes we must be careful to distinguish between these fundamentally different processes.

Allan de Gruchy

University of Virginia

[1] American Economic Review, June, 1930, p. 231.

REVIEWS AND NEW BOOKS

General Works, Theory and Its History

Fundamentals of Economics. By PAUL F. GEMMILL. (New York: Harper. 1930. Pp. xii, 489. $3.00.)

In the preface of this volume Professor Gemmill states: "My chief concern has been to present the subject clearly and interestingly. To this end I have introduced a good many illustrations from actual business practice, with the thought that economics should be taught with an abundance of concrete samples and that genuine illustrations from the world of business are more effective than hypothetical cases in gaining the interest and enthusiasm of the student."

The book is organized around the conventional subdivisions: Part I, Production; Part II, Exchange; Part III, Distribution. At the end of the first few chapters there is a definition of terms: Economics is the science that describes man's efforts to satisfy his wants by utilizing the scarce means provided by nature; wealth is a stock of useful, scarce, material, transferable goods; capital is produced goods intended for further production; and so on. Gemmill finds five types of utility: form, place, possession, time, service; he uses the doctrine that the costs of the representative firm are the long-run determinates of price. For price has a long run, a moderately long run, and a market price.

His treatment of supply and demand is generously fortified with graphs and a chapter each is given to "Cyclical changes in business activity" and "The handling of business risks." Rent, wages, interest, and profits are discussed in the usual fashion.

A few things are somewhat puzzling to the reader. Two chapters are given to international trade: first, facts and principles; second, the settlement of international differences; but no space is given to a discussion of tariffs. One wonders what Mr. Grundy, who is not only a business man but has the additional virtue of being a Pennsylvania senator, would think of a book on economics which gave two chapters to international trade and no space to tariffs. The usual treatment of wages is here, and it includes allusion to differences in wages but no space is given to organized labor and its influence, if any, on wages. Although economics is defined as directed at want-satisfaction, the consumer is practically ignored. Likewise, a description of the failure of competition to function does not seem a necessary preliminary to a discussion of monopoly prices.

Perhaps the writer has felt that most of these topics belong properly in a book, not of principles, but of problems. The omission of such material, however, together with the liberal space given to money and credit, and an exhortation on business training suggest that the book

has a commerce and finance bend which will make it more acceptable to schools of business than to liberal arts colleges.

On all these matters it can and should be pointed out, however, that the issue is one not so much of fact as of opinion. In only one instance do I find it possible to point out a distinct error of fact.

"Bondholders," we are told, "are really individuals who have loaned capital to the corporation. In exchange they receive bonds which have back of them, as security, the concrete physical property of the corporation. For their loans they are guaranteed a definite rate of interest each year. . . ." Evidently Mr. Gemmill has overlooked income bonds which commonly have no guarantee of a definite rate of interest and may have no concrete physical property behind them. The term, bonds, is simply a word for a contract, and there is usually no provision in the charter forbidding the issuance of them without a basis of physical property behind them or compelling an agreement that their return shall constitute fixed charges. They can and are occasionally issued on the basis of sharing in earnings when and if earned; or they can be issued with a fixed return plus equal participation with common stock in residual earnings.

It would not be fair to the author to suggest that the brief reference made here to the contents of his work constitutes an adequate description. I have selected these items because they seem to reveal his mode of treatment, a treatment which is conventional rather than pioneering, and hugs close to well-charted shores. Moreover, the book is an illustration of clear writing. But whether these qualities are sufficient to capture the interest and enthusiasm of the student, or whether something more substantial has to be done to make economics real to the layman, remains to be determined.

There is, probably, no course from which most of us are trying harder to get away and no course from which we are having a harder time getting away than the existing introductory course in economic principles. It doesn't go. We change from text to text from year to year, and then decide to write a text ourselves. When it is completed we realize that it is the best text on the market, but outsiders do not; and quiet comments within our own department indicate that our associates, who are compelled to use it, do not share our enthusiasm. And then we wonder.

To meet this situation Professor Gemmill brings the qualities of directness, simplicity, and clearness. That should help. What additional merit the book possesses arises out of the fact that it stands with the vast group of books that follow in the footsteps of Alfred Marshall and which seek to make economics real by touching up "the recognized" principles. Curtis; Deibler; Ely; Fairchild, Furniss and Buck; Garver and Hansen;

Hayes; Rufener; Seager; Taussig, and others illustrate the same point. Each has his merits. Some rely upon simplicity of statement, some upon diagrams, some upon slight revisions of theory, some add historical material to give background, some believe in the compactness of one volume, some think two volumes necessary to an adequate description, some add economic problems as distinct from theory, but in the main they possess striking similarity.

In contrast with these there is a group that shows signs of venturing from accustomed paths. Bye in his *Principles of Economics* is an example. The turn to the left in his case was slight, and his book met with some success. Edie in his *Economics, Principles and Problems* tried to stand by the orthodox and incorporate "the new." As a result he wrote a book that is unteachable in the hands of most instructors. Hamilton tried another approach in his *Current Economic Problems*, and the charge was made that the book was too philosophical. More recently L. C. Marshall with his three volume *Industrial Society* has ignored largely the conventional categories and laid down a challenge for wider vistas in approaching economics. Keezer, Cutler, and Garfield a few years ago produced *Problem Economics*. Its most severe critics call it an economics of exceptions and addenda. It failed, certainly, to develop a synthesis of material, but at least it was fresh, pioneering, although incomplete.

There is far more difference among these latter books than among those in the preceding group. In fact it is in their disagreement that hope lies. For out of such pioneering, perhaps, we shall find suggestions that may make it possible for us to remodel effectively our elementary economics; and it is my feeling that such remodeling has to take place if we are to make economics real. Of course, many teachers will disagree with this statement; and, as Anatole France said, "Who could ever terminate the disputes of the flute-players?"

WILLARD E. ATKINS

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Mathematical Introduction to Economics. By GRIFFITH C. EVANS. (New York: McGraw-Hill. 1930. Pp. xi, 177. $3.00.)

The scope of this book is modestly described by the author as not "a voluminous or complete treatise, but a short, unified account of a sequence of economic problems by means of a few rather simple mathematical methods." It is in textbook form with exercises to test the student's grasp of the principles at the end of each chapter and is designed to be available for students of the third or fourth undergraduate years. Among the problems discussed are the theory of monopoly, price under competition and coöperation, variable price, changes in the cost

and demand curves, taxation, tariffs, rent, interest, and the rates of exchange and the equation of exchange. There are also chapters on utility and marginal utility in which an attempt is made to treat these subjective phenomena by mathematical symbols, and a chapter in which the author elucidates his method of approach.

As in works of the classical economists, economics is treated as a hypothetical science: certain axioms or postulates are assumed and conclusions deduced. The differentiating feature is that the approach is by mathematical symbols rather than by syllogistic reasoning. For example, in the first chapter it is assumed that "the cost of producing a quantity of goods in a unit of time depends solely on the amount of the commodity which is produced"; it is assumed that "the amount of goods which may be purchased in the market in a unit of time depends merely on the price of that commodity"; and finally it is assumed that "there is a single producer and that he is operating with a view to maximum profit." Expressing these assumptions in terms of lines and equations, and treating the equations by means of algebra and the differential calculus, certain conclusions are arrived at in regard to monopoly output and monopoly price. By varying the assumptions, different conclusions are derived. If the conclusions in any case seem at some removes from reality, that is not the fault of the "logical mill" that grinds them out, it is the fault of the grist that is put into the hopper.

This weakness, however, if it is a weakness, is not peculiarly applicable to the mathematical method. It applies to all hypothetical science. It only means that if the science is to be other than "non-Euclidian," great care must be taken in formulating the assumptions; and the conclusions must be constantly checked and verified by observation and statistics. With this phase of the subject the author has nothing to do. He sets down his hypotheses and leaves it to the psychologist, the statistician, or to "horse sense" to ascertain their validity.

However, a mathematical treatment has wider possibilities than merely to translate economic conclusions into mathematical symbols. It has possibilities of great fruitfulness. It opens the way to arriving at new conclusions and new laws which might well have been overlooked when proceeding by the more cumbrous syllogistic method. One such conclusion, which I do not recall seeing in any other economic text, is stated on page 34: "Thus apart from any phenomenon connected with the rate of interest, bankruptcy may be regarded as a normal event in a system of competition."

The only regret that may be expressed in regard to Professor Evans' admirable book is that it is likely to have so few readers. He is a professor of pure mathematics; and symbols and processes which appear simple to him, will strike terror into the hearts of most economists. This

Jevons, W. S. Jevons, Knight, MacGregor, Marshall, Nicholson, Patten,

is not an indictment of the book; it is rather an appeal to economists to widen and deepen their mathematical training in order that they may make more use of a tool so adaptable to their science. It is hoped that the book under review may go far to remedy this deficiency in training for the rising generation of economists.

Philip G. Wright

Institute of Economics

A Select Bibliography of Modern Economic Theory, 1870—1929. Compiled by Harold E. Batson. (London: Routledge. 1930. Pp. xii, 224, 7s. 6d.)

The compilation of this bibliography, conceived by Professor Lionel Robbins and initiated by Dr. Hugh Dalton, was the work of several persons connected with the London School of Economics, though chiefly of Mr. Batson. Its purpose, as explained by Professor Robbins in an introduction, is not "to present a synthetic organon of any particular brand of theory," nor "to provide a minimum list of works indispensable to salvation in final examinations," but rather to offer "a catholic selection within which the student can read and form his own judgment without feeling that in making experiments he is likely to be wasting his time."

The scope of the work, as indicated by the title, does not include descriptive economics nor economic history. Moreover, all works on money and banking have been ignored because of a limitation of space dictated by "the experimental nature of the undertaking." Other important limitations have been to English, American, German, French, and Italian literatures, and in the case of the author bibliographies to the first four. The work is divided into two parts. In the first, the items are classified according to subject and are accompanied by brief critical annotations, which are sometimes amusing. The second part is an author bibliography: here an effort has been made to give chronologically every contribution, whether book, periodical article, or what not, of each author considered important enough for inclusion.

The subject bibliography includes the following divisions: "The scope and method of economic science (mathematical method, nature of capital and income)," "Systematic treatises, production (incentive risk, division of labour, international trade, variation of productivity, population)," "Value and distribution (concept of value, determination of value, supply, demand, competition and monopoly, functional distribution, wages, interest, profits, rent)," "Personal distribution, fluctuation, public finance (taxation, particular taxes, public expenditures, public indebtedness)." The author bibliography includes the following names: Cannan, Carver, J. B. Clark, J. M. Clark, Davenport, Fetter, Fisher, Flux, H. S.

Jevons, W. S. Jevons, Knight, MacGregor, Marshall, Nicholson, Patten, Pigou, Sidgwick, Taussig, Walker, Young; Amonn, Auspitz, Bauer, Böhm-Bawerk, Bonn, Bortkiewicz, Brentano, Cassel, Diehl, Dietzel, Kleinwächter, Knies, Lexis, Lieben, Liefmann, Menger, Mises, Oppenheimer, Philippovich, Sax, Schumpeter, Spiethoff, Wagner, Wieser, Zuckerkandl; Aftalion, Colson, Gide, Landry, Lescure, Rist, Walras.

It is always difficult to criticize such a work as this because, to be paradoxical, it is so easy. As a matter of fact, Professor Robbins, in a disarming paragraph, has anticipated that "no competent economist will go through this book without feeling that some of its inclusions are redundant and some of its exclusions are deplorable," and he has besought "criticism and suggestions for future editions." The reviewer, in the random comments which he is able to make in the space at his disposal, will try to limit himself to types of objection which he would expect to be general. The individual reader will have his own opinion as to the wisdom of the general scheme and of the choice of subject headings and leading theorists.

It is hard to see why the *systematic treatises* of Gide, Sax, Schönberg, Nicholson, and even Chapman and some of the recent American textbook writers were excluded from a list which includes the works of Cannan, Seager, Seligman, and Spann; three of the former are deemed worthy of inclusion in the author bibliography, only one of the latter. The lists under special subject-headings do not always indicate expert acquaintance with the literature; the reviewer was able to think of a dozen or more items which he would have considered quite as important as many of those included under a topic of special interest to him, *profits*. The author bibliographies cannot be relied upon as either complete or accurate: an inexhaustive checking turned up six articles and four books by Carver which are not listed; the dates of the first editions of two of Taussig's earliest books—*Protection to Young Industries* (1883), and *The Tariff History of the United States* (1888)—are wrong; and his well-known *International Trade* (1927, p. 425) is ignored even under that subject-heading. Moreover, titles are not always reliable.

In general, it may be said that Mr. Batson's bibliography suffers from the fact that it was compiled not only under limitations of time, funds, and bibliographical resources, but also by a pretty fairly homogeneous group of economists. No doubt later editions will show much improvement. As the book stands, however, for all its shortcomings, it will prove useful to most students of economic theory, whether for the avowed or for other purposes.

KARL W. BIGELOW

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employee. To grant the exclusive claim of a dynamic agency in a

Soziale Theorie des Kapitalismus: Theorie der Sozialpolitik. By Eduard Heimann. (Tübingen: Mohr. 1929. Pp. viii, 234. M. 12.)

With the coming of so-called modern capitalism, the brief period of the "democracy" of handicraft and small trade, reflected in the early creed of "revolutionary" liberalism, gave to the working population the taste of freedom and independence in industry. This freedom vanished since the appearance of the Industrial Revolution, when the machine, the factory, large-scale enterprise, and, above all, a perverted scale of values which placed profits above humanity, have collaborated to subject the labor to the oppressive will of the employer and to reduce his occupation to a toil devoid of interest and personality. The new order finds its expression in the later variant of conservative, bourgeois liberalism; but freedom is still implicit and potential within its framework. The resurrection of this freedom for the laboring multitudes constitutes the social dynamics of capitalism, culminating in some form of socialization.

This transformation is the slow and painful task of the workers; and the social evolution of capitalism is preëminently a labor movement. The "social idea" of the worth and dignity of labor as well as the intense desire for freedom are the driving forces; the social policies and legislation *(Sozialpolitik)* are the instrumentalities employed; and socialization is the almost inevitable outcome. The process is essentially dialectic. Freedom is the resultant of a striking disparity between the revolutionary liberalism in which capitalism was conceived and the unpleasant realities which the present order reveals. There is a Hegelian note in the argument, but it is not so strong as to dominate the analysis or obscure it. Curiously enough, this book reminds the reader more than once of John Dewey's latest essay on *Individualism, Old and New.*

The thesis is presented with a lucidity, an ability, and an intellectual flavor which bespeak an author of large stature. Professor Heimann has a flair for economic theory; he discerns clearly where it is involved, and he does not run from it. There are fruitful discussions of some of the finer points of liberalism, competition, monopoly, and social policy. And he introduces interesting although not totally unfamiliar analyses of the effects upon costs, prices, incomes and incidence, produced by the various phases of *Sozialpolitik*, such as the restriction of child and woman labor, scientific management, the length of the working day, social insurance, labor monopolies, and arbitration.

But as far as the central theme is concerned, many a reader is likely to demur. It is not at all clear why the social theory of capitalism is coterminous with the labor movement. The social aspects of capitalism connote a vast universe, and not merely the relations of employer and

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employee. To grant the exclusive claim of a dynamic agency in present society to the untutored, dissatisfied worker who, according to the author's testimony, is rendered by modern industry a devitalized cog in the wheel, is distinctly inadequate. The impact of science and inventions, the increased facilities of communication, the progressive growth of the corporateness of industry, the effects of advertising and popular amusements, the writings of thinkers on social problems, the intellectual climate of the age—these elements, to mention but a few, are left out of the picture. The author speaks of the "social idea" and of *Sozialpolitik*; but he is hardly mindful of the intricate play of agencies that unite to frame them. The book is a social theory of labor, not of capitalism. It is no exaggeration to claim that the masses of workers are not much interested in the social architecture, in the dramatic industrial transformations, in the fate of economic orders; by and large, the immediate personal questions of bread and circus are more within the orbit of their vision. We cannot be certain, either, that socialization in one form or another is the sublime end towards which all creation moves, although more than one prophet sees this end; still less are we certain that socialization will solve the problem of freedom, as Professor Heimann himself hesitatingly acknowledges.

But despite all criticisms, this is a substantial book presenting stimulating viewpoints and acute analyses. It can be recommended alike to the student of theory, labor problems, and social syntheses.

M. M. Bober

Lawrence College

NEW BOOKS

Castillo, A. V. *Spanish mercantilism: Gerónimo de Uztáriz—economist.* (New York: Ad Press. 1930. Pp. ix, 193.)

Since we are not accustomed to look to Spain for guidance either in economic theory or in economic history, our attention is arrested by any book that appears on either of these subjects from a Spanish source. The present work is largely an exposition of the *Theory and Practice of Commerce and Maritime Affairs* by Uztáriz, published in Madrid in 1724 and translated into English in 1751 and later into other languages. It has more value as a practical treatise on Spanish policy than as a theoretical treatise on economics. It throws a good deal of light upon conditions in Spain but adds nothing new to our knowledge of mercantilism.

Uztáriz was of noble family and of military and administrative experience in Spain. He had traveled extensively abroad and was much impressed by economic conditions and policies in France, Holland, and England. In his thinking, he was a follower of Colbert in so far as he held to the doctrine of the favorable balance of trade, emphasized manufactures and the merchant marine, neglected agriculture, and laid stress upon the importance of tax reform. Many of the judgments and analyses are threadbare from repetition.

Uztáriz did not see that the inflow of gold and silver from America

Verteilungsproblems durch die Grenznutzentheorie. (Leipzig and Vi-

raised prices in Spain and made it difficult for Spain to compete with other countries. His plan was to keep the precious gold and silver by creating a favorable balance of trade. The central part of his error was a failure to understand even the simplest aspects of the quantity theory of money. We note that Uztáriz emphasized, however, the domestic manufacture of goods in competition with foreign wares, and not the mere possession of bullion. He believed in the protection of well-developed, not infant, industries, because the incoming of foreign wares put before the eyes of artisans models of excellence for them to follow. He had an inkling of the cost of production theory in so far as he saw that goods manufactured in cities, where living was high, cost more than those made elsewhere.

Having in mind the crises of 1720 in Paris and London and the sad events turning round the Mississippi and South Sea Companies, he was opposed to the establishment of trading companies on the model of the Dutch East India Company. Agents or consuls he thought should be established in foreign cities to help Spanish trade. He advocated the creation of academies to assist the growth of both culture and trade.

Dr. Castillo has told the story of the life and work of a second-rate mercantilist in a straightforward and unpretentious manner. Unquestionably the tale is long drawn out, especially in view of the fact that it is not born in the fullness of knowledge of either Spanish history or Spanish economics.

N. S. B. Gras

Cooley, C. H. *Sociological theory and social research.* (New York: Holt. 1930. Pp. xiii, 345. $3.)

Fairchild, F. R. and Compton, R. T. *Economic problems: a book of selected readings.* Rev. ed. (New York: Macmillan. 1930. Pp. xiii, 693. $3.25.)

The first edition of this book was published in 1928. In this first revision no change has been made in the general plan. The revision consists in substituting for selections no longer of special current interest others dealing with problems of the immediate present, as well as in deleting certain sections which experience has shown could be replaced by topics of greater usefulness. Thus more than half of the volume represents new material not contained in the first edition; and the size of the book has been substantially increased.

Gonnard, R. *Histoire des doctrines économiques.* (Paris: Librairie Valois. 1930. Pp. viii, 709.)

Gross, G. A. *Die wirtschaftstheoretischen Grundlagen des "Modernen Kapitalismus" von Sombart. Eine kritische Untersuchung vom Standpunkt einer sozialindividualistischen Wirtschaftsauffassung.* (Jena: Fischer. 1930. Pp. viii, 159. Rmk. 7.50.)

Har, K. D. *Social laws: a study of the validity of sociological generalizations.* (Chapel Hill: Univ. of North Carolina Press. Pp. 268. $4.)

Haskell, G. D. and Taylor, R. E. *Questions and problems in economics.* To accompany Fairchild, Furniss and Buck, *Elementary economics,* Vols I and II, rev. ed. Rev. ed. (New York: Macmillan. 1930. Pp. ix, 99. 75c.)

Haydt, E. *Die ökonomische Zurechnung. Darstellung der Lösung des*

Verteilungsproblems durch die Grenznutzentheorie. (Leipzig and Vienna: Franz Deuticke. 1931. Pp. 132.)

Heller, W. *Nationalökonomie (Theorie und Geschichte). Ein Nachschlagebuch für Theorie und Praxis.* 3rd rev. ed. (Halberstadt: H. Meyèr. 1930. Pp. xiv, 319.)

Kretschmar, H. *Die Einheit der Volkswirtschaft in den älteren deutschen Wirtschaftslehren.* (Jena: Fischer. 1930. Pp. xxii, 354. Rmk. 15.)

Lapidus, I. and Ostrovityanov, K. *Outline of political economy.* (New York: International Publishers. Pp. xi, 546. $3.25.)

Marked by great lucidity and fine pedagogical dexterity, this book is undoubtedly very popular in Soviet Russia and among radicals everywhere. In its topical organization it resembles our own textbooks of economics: chapters dealing with value, surplus-value, wages, profits, interest, and rent strike familiar notes, except for the last chapters, which discuss the inevitable dissolution of capitalism and the certain triumph of socialism.

The questions are treated from three viewpoints. First comes a faithful Marxian analysis of the theory, with some of the contradictions ironed out, and with minor deviations here and there. Then follows an exposition of the relevant features of capitalism, with vehemence occasionally, but with academic dignity always. There are no hysterical exclamation marks. The picture is of course painted quite black, especially the plight of the workers, and more especially in the United States. Third, an interesting discussion is given in each connection of the problems and ideals of the Soviet régime. The point is stressed that as yet Russia does not present a homogeneous economic order, but rather a confluence of several economic forms, in the guise of state enterprise, private capitalists, the coöperatives, handicraft and artisans, and more or less primitive farming. The consequence is that the characteristically socialistic and capitalistic phenomena of value and distribution are in constant commingling and in mutual modification.

From the viewpoint of the conservative economist, the weaknesses of this book issue from the well-known flaws of Marx's theories; from the total failure to recognize the vitality, the adaptability, and the promise of capitalism; and from the stubborn insistence that all the shortcomings of sovietism are due solely to the circumstance that it is a transition stage to the perfections of socialism.

B.

Marshall, L. C. *Industrial society.* Rev. and enl. ed. Parts 1-3. (Chicago: Univ. of Chicago Press. 1929, 1929, 1930. Pp. 268, 269-945, 947-1658.)

The improvements here made upon the original one volume edition of *Industrial Society* are chiefly two fold: first, the selection of fairly complete extracts from the writings of the many authorities quoted, rather than of mere paragraphs or scraps of thought; second, the sharpening of the tie-in of isolated fragments of thought to the broad scheme of things in economic life. These improvements overcome most of the confusion which the original treatment tended to produce in the minds of beginning students.

Part I, *The Emergence of the Modern Order,* serves to present the evolutionary nature of the economic order. After some attention has been

of modern economists, he rejects entirely. The concepts of increa-

given to pre-historic economic existence, the main body of this volume deals with medieval economic institutions. Probably many would prefer a lesser emphasis upon the medieval order. The quantitative minded teacher would doubtless prefer to have had some further cognizance taken of types of fluctuations—secular, secondary, cyclical, seasonal, etc.

Part II, *Production in the Modern Order,* furnishes a particular form of institutional approach to production problems. The difference between the physical and the cultural resources of modern society is developed in considerable detail, and the technological content of cultural resources in special detail. Labor is treated primarily from the welfare point of view, and relatively little emphasis is placed upon a systematic theory of distribution with special reference to the wage share. From a textbook standpoint, the work should accomplish the goal of enabling the student "to see our producing activities as a coördinated whole."

Part III, *The Coördination of Specialists through the Market,* covers ground which usually appears under the more conventional titles of value and distribution. The readings would tend to give the student an awareness of the many problems of these fields rather than a unified, rigid, logical theory of the orthodox type.

In general, the three volumes serve as a vehicle for expression of Professor Marshall's positive philosophy of what an introductory course in economics ought to accomplish. The student who follows through this material will be likely to have a keen sense of what the major economic problems are, a grasp of the broader meaning of economic processes, a notion of the flaws and defects of the economic order as well as of its accomplishments, and an appreciation of the social as contrasted with the acquisitive point of view in economic studies.

LIONEL D. EDIE

ROSS, E. A. *Principles of sociology.* 1st rev. (New York and London: Century. 1930. Pp. xix, 592. $4.)

SALZ, A. *Macht und Wirtschaftsgesetz. Ein Beitrag zur Erkenntnis des Wesens der kapitalistischen Wirtschaftsverfassung.* (Leipzig and Berlin: Teubner. 1930. Pp. 246. M. 12.)

This contribution to the analysis of the capitalistic order of society evaluates the factor "power" in the economic equilibrium. "Power" is defined by Max Weber as "every chance to enforce one's own will even against opposition in the community."

The validity of "economic laws" when confronted with power, either in the form of "public laws" or "private monopoly," is scrutinized. The relations of worker to entrepreneur, consumer to cartel, government to taxpayer and others are analyzed from this point of view.

ROBERT WEIDENHAMMER

SCAGNETTI, G. *Produzione della ricchezza e ripartizione del reddito nelle imprese.* (Rome: Angelo Signorelli. 1930. Pp. vii, 276.)

The author tries to replace the traditional fourfold scheme of interest, rent, wages and profits by a simpler and more logical scheme. In about a third of the book's space he examines the productive process and the factors that enter into it. The distinction between capital and land, discussed with reference both to historical changes and to the reasoning

of modern economists, he rejects entirely. The concepts of increasing returns and decreasing returns lead nowhere. Agriculture and industry are subject to identical laws, but these are the law of definite proportions and the law of saturation.

Coming to distribution, he first discusses the fallaciousness of the Ricardian account of rent. An examination of wages brings him to the conclusion that all productive labor is of the same nature, and that no valid distinction can be made in the basis of its remuneration—a position, like that on rent, of which he will afterwards make important use. Interest is the return for capital, appearing whenever money is lent, irrespective of the purpose for which it is intended, uniform in its rate at a given time or place (except for premiums for risk) and not peculiarly related to the productive process as such.

With wages and interest thus broadly defined, he is ready for his principal discussion. He examines profits as a specific return. Yet only because his forbears have done so, whose views he now classifies and scrutinizes. One view connects profit with capital (not with land), but fails to distinguish that a part of the entrepreneur's return comes from his capital and a second part comes from his ideas and activities. Another view connects it with risk. The risks of industry, our author declares, however (with doubtful cogency), are best considered to be a phenomenon of the distributive process, not of the productive process. He discusses Hawley's argument, commenting that assumption of risk is not a function peculiar to the entrepreneur: if the enterprise fails, all the workmen—of whom the entrepreneur is one—and all the lenders of capital—of whom the entrepreneur may be the most important—are involved. The entrepreneur as such assumes no risk—one cannot regard as his risk the possibility that he may not secure a residual gain unconnected with his special function.

Economists who connect profit with labor (Davenport, Taussig) stand on securer ground. The author holds that the entrepreneur's work is subject to the same laws as that of all hired folk—then why call his remuneration profit? Lehefeldt's argument that investors, through choice of investments, exercise entrepreneur ability and secure a corresponding reward, he rules out on sundry grounds. Walker's analogy between profit and Ricardian rent he discards, because such rent is a residual return and the whole Ricardian theory not acceptable, and because profit is subject to the same laws as wages which Walker does not explain by a rent analogy; besides, Walker's theory would hardly have suggested itself to him in this day of the modern corporation. Clark's view also he finds unconvincing. He cannot see how, when dynamic changes are introduced into the static state, a specific return for the entrepreneur arises. Schumpeter's not dissimilar account is only less unsatisfactory.

In fine, no economist's analysis of profit reveals a specific return for the entrepreneur. Most authors exaggerate his service, attaching to him an importance which belongs to the enterprise itself. They seem to think that no one would conduct an enterprise except for a special and characteristic gain. The entrepreneur looks important merely because he distributes the rewards of all concerned. Actually he is only one who has invested his own or others' capital in an enterprise which he directs. He may be a captain of industry, taking a part of his reward, as Taussig

emphasizes, in his sense of power, of command. But quite as strictly he may be a person of humble station, who derives a corresponding satisfaction from the freedom of action which independence of employer control gives him. A mixed return the entrepreneur doubtless usually enjoys, but he does not enjoy a specific return.

Many economists are passed in review in the course of the book—French, German, Italian, British, American—but those referred to above illustrate, if they do not always carry, the main argument. To many readers the book's reasoning will seem over-simplified, doing violence to the complexity of the forces about them. But it merits a reading, and this may be taken as a word of commendation.

Robert F. Foerster

Sombart, W. *Die drei Nationalökonomien, Geschichte und System der Lehre von der Wirtschaft.* (Munich and Leipzig: Duncker and Humblot. 1930. Pp. xii, 352. M. 15.)

Sombart traces the opinions of various writers on economic matters to three origins, the first of which lies in the field of metaphysics, the second in the field of the natural sciences, and the third in the field of "*Geisteswissenschaft.*" These three schools of thought are represented by the directing, by the classifying or comprehending, and by the understanding economist.

As long as the investigator emphasizes the "just" and the "right" as the directing forces of life, and as long as thinking is guided by a great purpose lying not within but without the sphere of economics, it is evident that the directing economist devotes his time to metaphysics, even though he considers economics a science.

The classifying investigator adopts methods of research which are satisfactory in the field of the natural sciences. He groups and compares quantities which are measurable. He comprehends economic phenomena as long as they are measurable, thus observing only from the outside. He recognizes parts only, but, of course, does not understand the whole; understanding must proceed from the essential to the superficial, from the inside to the outside. It is clear, therefore, that this understanding depends upon methods different from those applied in the natural sciences.

Economics as a science of understanding economic phenomena has benefited greatly from the development of better methods of understanding. Since the time of Giambattista Vico, whom Sombart calls the father of modern "*Geisteswissenschaft*" (see Vico's *De Nostri Temporis Studiorum Ratione*, 1709), the development of understanding has passed through an experimental, a critical, and a constructive period. In economics the change in methods of understanding has taught us to study economic phenomena in their position within a system of thought which we have elaborated. Within the capitalistic system, for example, we can understand the essence of the relationship between employer and employee as soon as we know the meaning of capitalism. An individual contract has a very definite meaning within the system of capitalism. We understand every working man and every entrepreneur who acts according to the spirit of capitalism.

Is this modern approach to understanding not evidenced in American behaviorism? According to Sombart, behaviorism applies to only the well-

known classifying methods which do not lead to understanding. Convinced that economics is a science but not an art, a science but not a natural science, Sombart insists that we apply methods differing from those used in the natural sciences; it is only through this approach that economics will take its place as a modern science.

KURT A. SEPMEIER

SPAHR, W. E. *Questions and problems to accompany Ely's Outlines of economics.* 5th ed. (New York: Macmillan. Pp. 85. 70c.)

SPIRITO, U. *La critica della economia liberale.* (Milan: Fratelli Treves. 1930. Pp. 226.)

WESTPHALEN, F. A. *Die theoretischen Grundlagen der Sozialpolitik.* Deutsche Beiträge zur Wirtschafts und Gesellschaftslehre, Band 9. (Jena: Fischer. 1930. Pp. vii, 196. Rmk. 11.50.)

Economic History and Geography

The World's Economic Dilemma. By ERNEST M. PATTERSON. (New York: McGraw-Hill. 1930. Pp. vii, 323. $3.50.)

Dr. Patterson here takes stock of the general economic situation prevailing throughout the world. After considering fundamental phenomena, such as those of population, large-scale production, world markets, and price economy, he outlines the economic difficulties of several leading countries. Throughout he shows the operation, and absence of operation, of familiar economic theories, such as that of diminishing returns. The contrast is shown between a political order which is still primarily nationalistic and an economic order which is essentially world-wide; and here the dilemma is indicated.

The book is stimulating is several ways. For one thing, as mentioned above, it calls for critical reëxamination of certain economic concepts which many schools of thought have come to call principles or even laws. One might suppose, for example, that the ideal of geographic division of labor could not be challenged. But Dr. Patterson (p. 186) refers to "Lardner's law of least squares" as discussed by Alfred Marshall; it may be true that, since "the area of a circle varies as the square of its radius," increased transport efficiency may multiply the benefits of such division of labor, but without such developments in transport, distance may offset the benefits. Indeed, one is reminded of the fact that various economic theories may have been the product of, or may operate only under, given conditions of time and place. So far as the solutions of the "dilemma" are concerned, it might be argued that the ones suggested are not new, nor are they entirely available to governments. But this is really their merit. If certain methods are already being used, though inadequately; if certain forces are in operation, though insufficiently, what could be more practicable than to find in them possibilities

for further development? It is in this way that the world gradually progresses, especially if the forces are natural ones.

As for the purposes and general viewpoint of the book, with its appeal for more thorough consideration of the subject as a whole than was customary in earlier years, the reviewer is in hearty accord, having undertaken an organization of the field in a book on the subject of international economic relations. Dr. Patterson well states, in speaking of the problems of international affairs, that "so many of them are economic while those entrusted with the conduct of public affairs . . . have lacked economic training. Economists without political training might have done worse. There certainly has been a crying need for a blend of the two. . . . When we turn to the literature in the field we are struck with the lack of any broad treatment of many of the issues involved. There are many volumes appearing . . . but they fall into two general groups. The first are written by historians, by journalists, and by political scientists and reflect the specialized interests of their authors. Some treat current events in a most valuable manner, but with a minimum of background. Others present the principles of international law and of politics. The works of the historians are apt to place emphasis upon political matters and even when economic considerations are introduced they are not always presented with enough of the economic principles involved to make the treatment adequate."

Dr. Patterson's book is written in a clear and readable style. It should be of interest to economists, to all who are special students of international problems and policies, and to many general readers who are interested in world affairs.

JOHN DONALDSON

George Washington University

American Industry and Commerce. By EDWARD D. DURAND. (Boston: Ginn. 1930. Pp. xviii, 653. $4.00.)

This work is a contribution of first-rate importance to the literature of economic history. It illustrates the value and appropriateness of statistics as a means of describing and interpreting history, but does not neglect the influence of race heredity in the development of the nation, socially and politically as well as economically. Dr. Durand knows the size and difficulty of the task he has undertaken, but he has not tried to make it easier by limiting its scope. Rather the reverse, since he announces at the very beginning that he aims to give, not merely the facts regarding the wealth, industry, commerce, and economic history of the United States, but to reveal "the basic causes of American prosperity and progress and to sketch the more important of those proximate and derivative forces for efficiency into which these underlying factors translate themselves" (p. ix).

The several tasks described might well daunt the courage of an economic Hercules or stagger the imagination of a statistical Einstein. Upon reading this prospectus by the author, the reviewer was filled with forebodings inspired by the all too familiar failures of ambitious authors to redeem prefatory promises. These forebodings did not diminish with the perusal of the introduction, in which the author treats with much seriousness some rather severe though trivial animadversions which certain foreign and domestic writers delight to utter regarding American industrial organization, mechanized mass production, precarious prosperity, and crude culture. In this chapter and at intervals throughout the book, the author writes as an apologist and defender, rather than as an impartial statistical-economic historian seeking to present facts as they are and interpretations as they may be necessary.

These forebodings were speedily dissipated by a perusal of the book itself, which is packed with live and fascinating statistics presented in understandable, readable, and lucid language. The large promise so boldly given in the beginning is made good so far as statistics expounded with knowledge and insight can make it good. Many readers may disagree with some of Dr. Durand's conclusions and some with many, but most will agree that he has done a meritorious piece of work in compacting between the covers of one book so much important information so intelligently treated. The task of merely assembling the statistical materials was prodigious. The author has selected his statistical raw materials carefully and has worked up and arranged his finished products to tell a consistent story of economic and social progress. The quantity of statistical material presented without making the book read like a census report is a tribute to the statistical and literary ability of the author.

Dr. Durand first compares national incomes and standards of living in the United States with those in other industrial countries. After giving a rapid summary of the economic progress of the United States, he plunges into the discussion of the primary and secondary factors which have contributed to our economic progress. He then treats the multifarious industries and occupations of the American people under four major group headings: agriculture; mining and quarrying; manufactures; transportation and communication. At the end he gives an illuminating chapter on foreign trade.

An unsympathetic critic might sum this up in a cold statement that nothing original or even statistically new is presented. Such a statement would be superficially true but fundamentally false. It is, of course, true that Dr. Durand has made use of statistical-economic facts and conclusions published by governmental and reliable private agencies which are available to everybody. The result is an original and highly

useful work. The originality in his work consists in bringing together from many diverse sources a vast array of statistical facts of varying degrees of exactness, and subjecting them to critical analysis and interpretation. One chief merit of his book, in the reviewer's opinion, is the absence of highly ingenious, complicated, and difficult mathematico-statistical refinements which show forth the erudition of the compiler, but obscure rather than illuminate the series treated.

Dr. Durand's book should be judged primarily as a work on economic interpretation and economic philosophy. In the midst of the prevailing world-wide depression he might probably be denounced as a Pollyanna Prophet of Prosperity by many workers, if they should chance to read, "For the first time in history man has reached a height whence he can dimly see ahead the Promised Land. From the material standpoint at least, the Utopia of the philosophers and the romancers seems no longer an altogether idle dream" (p. xvi).

To the hundreds of thousands keenly suffering at the present time, the Promised Land seems a very distant, mythical realm. The Utopias of the philosophers seem just as unreal and unrealizable today as they did before mass production was invented. It does seem that increasing the amount and speed of production does not and cannot bring us any nearer to universal and uninterrupted prosperity so long as production is determined and dominated by ruthlessly competing enterprisers seeking blindly for individual profits. Probably many will challenge the author's conclusion that "the real prosperity and progress of the country and the real well-being of the people . . . do constitute strong arguments in support of the general soundness of American economic and political institutions and policies. They do put the burden of proof on any group that seeks change in the basic principles and practices" (p. xvii).

Certainly it would seem that economic and political changes truly "basic" in character are needed to *assure* and *insure* employers and workers alike against the recurrence of disastrous booms and destructive crashes in business with accompanying overemployment and unemployment. Dr. Durand would probably reply that he does not regard such changes as basic and that he is wholly in favor of stabilizing business and employment if practicable means for so doing can be discovered. No drastic or revolutionary changes in the existing political and economic systems are necessary to smooth out the ups and downs of business and employment.

This book is well adapted as a reference work and as collateral reading in college courses in economics.

Royal Meeker

New Haven, Connecticut

Economic History of Europe, 1760-1930. By ARTHUR BIRNIE. (New York: Dial Press. 1930. Pp. xi, 289. $4.00.)

This admirable sketch of the economic history of Europe brings forward a number of new interests and states with felicity the most common interpretation of the period covered. The text is evenly divided between the description of institutional changes and the discussion of social problems and policies. The general changes are described as "revolutions" in industry, agriculture, transport, commerce, and commercial policy. There is some apology for the use of the term "revolution"; but it is defended on the ground that the changes were comprehensive and far-reaching, though spread over a long period. The text reveals the strength and weakness of this interpretation; the exposition gives us sharp antitheses between conditions at the beginning and end of the period; but there is no sustained description of the processes by which these changes came about. Herein lies the real danger of thinking in terms of "revolutions": there is this temptation to conclude that the task of the historian is finished when the "revolution" has been thus described. A useful device for popular exposition consequently tends to distract attention from the analysis of the processes of history, although the study of these processes is really more important than bare description of the final results.

There is also in these chapters a comparative neglect of economic geography. One hesitates to criticize when the limitations of space are so severe; but no one who appreciated the geographic factors in England's position would say that "political factors" made her the country in which the Industrial Revolution was first felt. One must overlook a considerable array of geographic factors in respect of commerce as well as of industry to reach such a judgment.

The eight chapters on problems, reforms, and social policies are the more substantial contribution of the volume. The underlying point of view is fresh and stimulating; each of the topics is presented as a problem in constructive social policy, with sufficient documentation to afford an excellent basis for discussion. These chapters are, however, intensely characteristic of the tendencies dominant in economic history at the moment. There is a keen consciousness of the significance of the long-standing controversy between conservative and radical points of view, represented somewhat imperfectly by economists and socialists. The author clearly sympathizes with the radical criticism, though apparently he is not willing to accept the socialistic doctrines in their entirety.

The discussion in the text rests upon common misconceptions of history and of theory. The problems in the history of social policy need not be discussed here, but we cannot properly omit all reference to the

historical problems. "Every upward movement of economic progress," we are told, "has been accompanied by greater social inequality, and the human race has paid for its increase in material comfort by a certain weakening of the social sympathies. The Industrial Revolution is no exception to this general law. . . . It made a few rich, but it made many poor. It increased national wealth, but it diminished national well-being. It promoted material prosperity, but it arrested social progress" (p. 106).

These views are no doubt widely held; but it should be recognized that they do not rest upon verified historical data, nor are they consistent with a critical interpretation of material now available. If economic history is to serve as a helpful basis for the discussion of social problems, it must achieve something better than plausible generalizations based upon superficial description of a few conspicuous events. For these elements of weakness the author can scarcely be held responsible. He has presented current views with vigor and skill; but it must be confessed that the merits of his exposition merely serve the more clearly to reveal the essential weakness of modern eclecticism which absorbs so many socialistic generalizations with so little regard to their relation to historical criticism and the verifiable data on the problems of social evolution.

Abbott Payson Usher

Harvard University

A History of the English Corn Laws from 1660-1846. By Donald Grove Barnes. London School of Economics, studies in economic and social history. (New York: Crofts. 1930. Pp. xv, 336. $5.00.)

English history is crowded with references to the Corn laws. Mercantilistic in nature, possessed of many variations and implications, they have been frequently stressed by students of social, political and economic history. And yet until the appearance in 1915 of *The Evolution of the English Corn Market* by Dr. Gras, no scholarly treatment of these laws existed. Gras, moreover, limited his research to the period before 1700. To complete the narrative and to bring it down to the repeal of these laws in 1846 became Dr. Barnes' object in writing this volume.

The author begins his narrative with a suggestive account of the Restoration corn law policy. Seventeenth century measures were not concerned in general either with an internal trade or with the needs of the consumer; rather do they stress the export trade and the rôle of the producer. This is well illustrated by the careful attention the author gives to the protective devices, the "removal of restrictions on exportation and finally by a bounty on exportations." Indeed, the theme of

the second and third chapters is that which deals with the Bounty acts of 1673 and 1689. According to Dr. Barnes, these laws stimulated domestic production, created a surplus for a profitable export trade, and served a useful purpose until 1765, when exports dwindled and a new industrial England offered a market which gradually supplanted that abroad. Even then it was not until 1815 that any vital change in principle was made in the Corn laws. Changes in detail were made by the Acts of 1773, 1791 and 1804, but the body of the law was left intact. It is of interest to note, however, that though these acts failed or did not function due to well known economic, political and international factors, they foreshadowed a distinct change of attitude on the part of the landed classes. This new attitude was clearly expressed in the acts of 1814 and 1815—clear instances of class legislation. In the face of evident disapproval, the landed interests, according to Dr. Barnes, forced the nation into a protective Corn law policy; a policy moreover which broke with the past by stressing importation rather than exportation, producer rather than consumer. Availing themselves of their political power, these self-interested legislators hoped to keep rents and corn prices high, but in so doing gained the ill will of the town laborer, annuitant and manufacturer.

From this time on a mighty contest was waged within and without Parliament. During the 1820's the agitation was intense and all of the arguments advanced at a later date against the Corn laws were then placed before the nation. And though other matters brought about a decline in interest from 1828 to 1838, the issue was by no means dead. With the formation of the Anti-Corn Law League a fierce and determined attack was made by those interested in cheap and abundant corn. Led by men like Cobden and Peel, the movement for repeal gained ground and was completely victorious in 1846.

This rough résumé of the contents of this volume does not do credit to the author, who in those chapters devoted to the period before 1838 has gathered a host of important and interesting facts, and from these has deduced many suggestive interpretations and conclusions. Those pages relating to the Corn law of 1815 and to the agitation of the 1820's are well worthy of careful reading. In many ways they represent Dr. Barnes at his best. Particularly noticeable is the nice balancing of the arguments for and against a free trade in corn.

In general, these views and conclusions are well documented. Proof, however, seems to be wanting for his statement that the middle class educated the laboring element to feel that "there was no hope for cheap bread until a reform of Parliament took the power out of the hands of the Landlords" (p. 203). The Reform Bill of 1832 did this in part, and yet there was no immediate move for a drastic change in the Corn

law. Again, is it not an exaggeration to state that the law of 1815 was enacted "in the face of the *overwhelming* (italics, mine) disapproval of the nation" (p. 151)? Further, to hold that "very little grain" was imported from 1805 to 1813, except in 1809 and 1810, is to deny the import of the other years which totally exceeded that for 1809 and 1810 (p. 92).[1]

These criticisms should not, however, detract from the inherent merits of this volume which distinctly aims to reflect public opinion and to determine what social forces and classes favored or opposed each law. Moreover, it is the Corn law and not the corn trade which has been the object of research. Conclusions and opinions have been presented by Dr. Barnes in an honest and straightforward fashion. Personal views, generally, are left for the final chapter, and the author strives to give an orderly account as he sees it. Orderly it most certainly is, but the reviewer wonders if some of the detail might not have been left out. The volume is too annalistic and at times becomes lifeless by constant extracts or condensations from Hansard or some other authority.

Dr. Barnes has based most of his findings upon pamphlet material—over 800 titles appear in the bibliography alone—upon Hansard, the *Journals* of the Houses of Parliament, and well selected Parliamentary papers. The labor required to have exhausted this material must have been enormous. Many of the more important periodicals of the time are cited, as well as the Place Collection of newspaper clippings preserved at the British Museum, although one finds no mention of the *Farmers Magazine*, the *Agricultural Magazine*, *Monthly Magazine* and *British Review*.[2] Manuscript sources, chiefly those at the British Museum, are ably used. It may be that an examination of the Board of Trade, Privy Council and Board of Agriculture Papers would have added to the merits of this volume. Among secondary authorities, one notes the writings of Gras, Smart, Nicholson, Lord Ernle and others, all of which seem to have been read and studied diligently.[3] The reviewer feels that a critical note in respect to these writings would have helped, that the index might have been improved and that Appendix E might have an authority cited. In the main, however, Dr. Barnes has written a volume of decided value and merit, and has kept closely to his objective of emphasizing public opinion. Students of English history have now a complete narrative of the Corn laws from 1660 to 1846.

W. F. Galpin

Syracuse University

[1] *Parliamentary Paper*, 1825, no. 227.

[2] A reference to the *Farmers Magazine* appears on page 98.

[3] Volume II of H. Atton and H. H. Holland, *The King's Customs* (1908-1910), has suggestive material on the Corn laws.

NEW BOOKS

ALLEN, G. C. *The industrial development of Birmingham and the Black Country, 1860-1927.* (London: Allen & Unwin. 1929. Pp. xxiii, 479. 25s.)

ANDRÉADÈS, A. *Philip Snowden: the man and his financial policy.* Translated by D. BOLTON. (London: P. S. King. Pp. 110. 5s.)

ANDRÉADÈS, A. *Philippe Snowden: l'homme et sa politique financière.* (Paris: Alcan.)

ANDREE, K. T., and others. *Geographie des Welthandels: eine wirtschaftsgeographische Erdbeschreibung.* 4th ed. (Vienna: Seidel. 1930. Pp. 692.)

BOGART, E. L. *Economic history of the American people.* (New York: Longmans Green. 1930. Pp. xii, 797. $3.50.)

BOWLEY, A. L. *Some economic consequences of the Great War.* (London: Thornton Butterworth. Pp. 251. 2s. 6d.)

BURNS, E. *Russia's productive system.* (New York: Dutton. Pp. 288. $4.)

BYRNE, E. H. *Genoese shipping in the twelfth and thirteenth centuries.* (Cambridge, Mass.: Mediaeval Academy of America. 1930. Pp. ix, 159. $2.75.)

In this study we find a good deal of information concerning the construction and operation of ships in Genoa. The most common method of providing the necessary capital was by means of partnerships, the partners owning transferable shares. In order to operate a ship effectively the partners or shareholders might entrust their shares to one person who could raise money on these shares for making repairs, paying wages, and so on. While treatises on medieval shipping have hitherto dealt with the legal side of shipping, this book is primarily concerned with the business aspects.

The author deals with types and size of ships, construction, contracts for cargo, ships' scribes, and privateering, besides ownership by means of shares. He points out that the smaller contracts were commonly quite informal, while the more important ones were set down in the notaries' records. Examples of notaries' acts are found on pages 70-159, covering the period 1200-1291. These documents are critically edited with all the important irregularities reproduced for the benefit of the student. In reading this book we observe the results of ripe scholarship and prolonged study in the field of Genoese commercial history.

N. S. B. GRAS

CARMAN, H. J. *Social and economic history of the United States.* I. *From handicraft to factory, 1500-1820.* (Boston: Heath. 1930. Pp. xii, 616. $4.)

CARSON, W. J., editor. *The coming of industry to the South.* Annals, vol. 153. (Philadelphia: American Acad. of Pol. and Soc. Science. 1931. Pp. 206. $2.)

COLE, G. D. H. *The life of Robert Owen.* 2nd ed. (New York and London: Macmillan. Pp. 350. 12s. 6d.)

COORNAERT, E. *Un centre industriel d'autrefois. La draperie-sayetterie d'Hondschoote.* (Paris: Les Presses Universitaires. 1930. Pp. xxiv, 520.)

———. *L'industrie de la laine à Bergues-Saint-Winoc.* (Paris: Les Presses Universitaires. 1930. Pp. 112.)

DARLING, M. L. *Rusticus loquitur: the old light and the new in the Punjab village.* (New York: Oxford Univ. Press. 1930. Pp. xiv, 400. $6.)

In *Rusticus Loquitur* Malcolm Darling has revealed a rare ability to write both with an insight into economic realities and with remarkable literary charm. The book is in part a day-to-day record, and in part a summary of resulting impressions, of an inspection tour of coöperative societies in Punjab villages.

The author concludes that the countryside, especially in the western Punjab, is still largely dominated by the trinity of the money-lender, the landlord and the pir, though the power of the professional money-lender is waning; the landlord must become more conscious of his obligations or he will be obliterated; and the influence of the pir, who is even more of a parasite than the landlord and "exploits the peasant's ignorance of the next world as systematically as any money-lender his ignorance of this," is also beginning to decline. In the eastern Punjab, due to the greater spread of irrigation, coöperation, education, improvement of communications and experience gained through immigration and war, the "new light" is more diffused; the standard of living is higher; there are more "better living" societies to reduce excessive marriage expenditures; and old uneconomic customs are weakening more rapidly.

Especially interesting are the similarities which the author notes, both in customs and in the level of living, between the peasants of the Punjab and those of the Alpine-Mediterranean region. Valuable also is his emphasis upon the need of a gospel of sufficiency and service as a synthesis between the old gospel of poverty and the new gospel of gain, between the old light and the new, and his recognition of coöperation as the most promising vehicle of the gospel of sufficiency and service.

Rusticus Loquitur is a contribution both to economic science and to literature: it is a source book and record of economic transition, and it is also an unusually delightful and thoughtful book of travel.

CLARK WARBURTON

DAS, R. K. *The industrial efficiency of India.* (London: P. S. King. 1930. Pp. xii, 212. 8s. 6d.)

DAVIS, J. *Contemporary social movements.* (New York and London: Century. 1930. Pp. xx, 901. $5.)

DONDINEAU, A. and SPENCER, L. A. *Our state of Michigan.* Rev. ed. (New York: Macmillan. 1930. Pp. 256. $1.20.)

DONNAN, E., editor. *Documents illustrative of the history of the slave trade to America.* Vol. I. *1444-1700.* Pub. no. 409. (Washington: Carnegie Inst. 1930. $3.50.)

DUNHAM, A. L. *The Anglo-French treaty of commerce of 1860 and the progress of the Industrial Revolution in France.* (Ann Arbor: Univ. of Michigan Press. 1930. Pp. xii, 409. $3.)

Professor Dunham's scholarly monograph illustrates the possibilities of multiple archive research. Drawing much new material from the Foreign Office papers in the British Public Record Office, the archives of the French Ministry of Foreign Affairs, the *Archives Nationales,* and the

private papers of Chevalier, Cobden, and Gladstone, he has produced the first adequate study of the Anglo-French treaty of 1860. With a sound sense of proportion and admirable clarity of style he has treated his subject not merely as an interesting episode in secret diplomacy, but as one of the factors that stimulated the development of the Industrial Revolution in France.

The first seven chapters of the book, which sketch the background and trace the negotiation of the treaty, show that the initiative was taken by Michel Chevalier, and that both his influence and that of Gladstone on the negotiation have hitherto been inadequately recognized. Although the part played by Napoleon III is not wholly clear, Professor Dunham concludes that the Emperor really favored a moderate tariff for France, and that he and Rouher deserve even more credit than Cobden for the full completion of the treaty.

Although it is doubtful whether the treaty had any marked effect on the general development of British industries, its effects in France were notable. Professor Dunham analyzes in his eighth chapter the administration of the imperial loan to French manufacturers, and then devotes six chapters to the influence of the treaty on the iron, cotton, woolen and worsted, linen, silk, and wine industries. He closes with three chapters on Thiers' attempt to restore high protection, the abandonment of the treaty, and the rôle of Chevalier and the significance of the treaty. There follow an appendix of documents, a critical bibliography of fifteen pages, and an index of seventeen. All or parts of several of the chapters have appeared in six different periodicals.

The Emperor's hopes that the Treaty of 1860 would increase the prosperity of French industry and better the lot of the working classes seem to have been largely fulfilled. The great French industries which had clamored against the treaty as menacing them with ruin, "prospered exceedingly, despite both the Treaty with England and the Civil War in America. The stimulus of foreign competition forced them to enlarge their factories and improve both their machinery and their methods of production." The treaty stimulated the great development of French railroads in the ensuing decade, and the use of coal instead of wood for smelting.

JAMES P. BAXTER, 3RD

FOLWELL, W. W. *A history of Minnesota.* Vol. IV. (St. Paul: Minnesota Historical Society. 1930. Pp. xiii, 575.)

The final volume of the author's four-volume work, making this one of the most complete histories of a single state. Chapter 1 in this volume deals with the Minnesota iron mines.

FONG, H. D. *Triumph of factory system in England.* (Tientsin, China: Nankai University Committee on Social and Economic Research. 1930. Pp. 310. $3.)

This monograph is a doctoral dissertation submitted at Yale in 1928, under the direction of Professor Clive Day. The author analyzes in particular for the period about 1840 the changes which took place in the following industries: textiles, paper, pottery and glass, metal, and clothing. The study brings together a large amount of statistical material and includes an annotated bibliography of nearly 30 pages.

GHOSHAL, U. N. *The agrarian system in ancient India.* (Calcutta: University of Calcutta. 1930. Pp. 123.)

GRETTON, R. H. *A modern history of the English people, 1880-1922.* (New York: Dial Press. 1930. Pp. 1185. $5.)

GRINKO, G. T. *The five-year plan of the Soviet Union: a political interpretation.* (New York: International Pubs. 1930. Pp. 339. $3.50.)

HAENSEL, P. *The economic policy of Soviet Russia.* (London: P. S. King. 1930. Pp. vii, 190. 9s.)

HORNADY, J. R. *Soldiers of progress and industry.* (New York: Dodd Mead. 1930. Pp. vii, 243.)

A history of water-power development in Alabama and the part played by W. P. Lay and the Alabama Power Company.

HOWLAND, C. P., director. *Survey of American foreign relations.* (New Haven: Yale Univ. Press, for the Council on Foreign Relations. 1930. Pp. xvii, 541. $5.)

Deals particularly with the Far East. Includes chapters on economic relations and migration in the Pacific area. The latter portion treats of the post-war financial relations in Europe and the Young plan.

JAMES, H. F., editor. *China.* Annals, vol. 152. (Philadelphia: American Acad. of Pol. and Soc. Science. 1930. Pp. 431. $2.)

JOHNSON, G. G. *A social history of the Sea Islands, with special reference to St. Helena Island, South Carolina.* (Chapel Hill: Univ. of North Carolina Press. 1930. Pp. 245. $3.)

LEVY, H. *Volkscharakter und Wirtschaft: ein wirtschaftsphilosophisches Essay.* (Berlin: Teubner. 1926. Pp. viii, 128. R.M. 5.60.)

Attempts to find relations between the structure of economic life in different countries and the general characteristics of the people in these respective countries. An interesting contribution to the exploration of the scientific borderland between economics, sociology, and psychology is thus made, a field in which even pioneer work has hardly started yet.

ROBERT WEIDENHAMMER

MITRANY, D. *The land and the peasant in Rumania. The war and agrarian reform (1917-21).* (New Haven: Yale Univ. Press, for the Carnegie Endowment for International Peace. London: Oxford Univ. Press. 1930. Pp. xxxiv, 627.)

MUKHTYAR, G. C. *Life and labour in a South Gujarat village.* Edited by C. N. VAKIL. (Calcutta: Longmans Green. 1930. Pp. xx, 303.)

NALDONI, N. *La politica economico-coloniale d'Europa nell'epoca moderna.* (Rome: A. Signorelli. 1930. Pp. vii, 151.)

NEULING, W. *Deutschlands Wirtschaftserfolg, 1924-1929. Theorie und Praxis volkswirtschaftlicher Erfolgsrechnungen.* (Jena: Fischer. 1930. Pp. iii, 142. Rmk. 7.50.)

ORCHARD, J. E. and ORCHARD, D. J. *Japan's economic position: the progress of industrialization.* (New York: McGraw-Hill. Pp. 520. $5.)

Prepared under the auspices of the University Council for Research in the Social Sciences of Columbia University.

POMFRET, J. E. *The struggle for land in Ireland, 1800-1923.* (Princeton: Princeton Univ. Press. 1930. Pp. xii, 334. $3.)

This difficult and unpromising subject becomes in the hands of the author a significant and appealing study in the history of land tenure and

land policy. It will be of wide appeal. This question is indeed the key to the understanding of the history of Ireland in the nineteenth century, as the author contends, but it is also an important chapter in the general history of land tenure. English economists and political theorists of the early nineteenth century seem to have been curiously unaware of the distinctions that should have been drawn between absolute ownership and the complex tangle of rights and duties which were the legacy of feudalism. They applied their theories of a free contractual society to a society that was dominated by the obsolescent survivals of a distinct social system. The results were serious for England; for Ireland, the attempt strictly to define the legal rights of the peasantry spelled sheer disaster. The entire history of the relations of landlord and tenant is unfolded with rare sympathy, skill, and impartiality. The book is adequately, but not obtrusively documented. It is, on every count, a notable contribution to the history of economic and social policy.

A.P.U.

SARKAR, B. K. *Società ed economia nell'India antica e moderna.* (Milan: Tip. Sociale. 1930. Pp. 47.)

SCHNEIDERMAN, H., editor. *The American Jewish year book, 5691. September 23, 1930, to September 11, 1931.* (Philadelphia: Jewish Pub. Soc. of America. 1930. Pp. vii, 436.)

STEPHENSON, N. W. *Nelson W. Aldrich: a leader in American politics.* (New York: Scribner's. $5.)

TURLINGTON, E. *Mexico and her foreign creditors.* (New York: Columbia Univ. Press. 1930. Pp. x, 449. $6.)

WEBER, K. *Die Einwirkungen der Reparationen auf die Weltwirtschaft.* Münchener volkswirtschaftliche Studien, Heft 15. (Jena: Fischer. 1930. Pp. x, 98. Rmk. 4.50.)

WENDER, H. *Southern commercial conventions, 1837-1859.* Johns Hopkins Univ. studies in hist. and pol. sci., ser. xlviii, no. 4. (Baltimore: Johns Hopkins Press. 1930. Pp. 240. $2.)

WHEELER-BENNETT, J. W. and LATIMER, H. *Information on the reparation settlement, being the background and history of the Young Plan and the Hague Agreements.* (London: Allen & Unwin. 1930. Pp. 253. 10s.)

WINKLER, J. K. *Morgan the magnificent: the life of J. Pierpont Morgan (1837-1913).* (New York: Vanguard Press. 1930. Pp. 313.)

WOOD, G. L. *The Pacific basin: physical, ethnological and economic study.* (New York: Oxford. 1930. Pp. 352. $4.50.)

Credit position of Germany. Bull. no. 40, rev. of no. 19. (New York: Institute of International Finance. 1931. Pp. 40.)

Credit position of Japan (revised). Bull no. 39, suppl. to no. 14. (New York: Institute of International Finance. 1930. Pp. 27.)

Die interalliierten Schulden: ihre Entstehung und ihre Behandlung im Young-Plan. Bearbeitet im Statistischen Reichsamt. (Berlin: R. Hobbing. Pp. 204. R.M.9.)

Minnesota year book, 1930. Vol. I. (Minneapolis: League of Minnesota Municipalities. Pp. 340. $5.)

A picture of world economic conditions in the early fall of 1930. (New York: National Industrial Conference Board. 1930. Pp. xv, 251. $2.50.)

Statistisches Jahrbuch deutscher Städte. Amtliche Veröffentlichung des deutschen Städtetages. 25. Jahrgang, Lieferung 3. (Jena: Fischer.)

Ten years of world coöperation. (Geneva: League of Nations. Boston: World Peace Foundation. 1930. Pp. xi, 467. $3.50.)

Contains chapters on financial and economic coöperation and international transit and communications.

Die Wirtschaft des Auslandes, 1900-1927, 1928. Einzelschriften zur Statistik des Deutschen Reichs, nos. *5*, 8. (Berlin: R. Hobbing. 1928, 1929.)

Agriculture, Mining, Forestry, Fisheries

The Farm Board. By E. A. Stokdyk and Charles H. West. (New York: Macmillan. 1930. Pp. ix, 197. $2.00.)

The authors are successful in producing a popular statement of the agricultural situation and the contributions which the Federal Farm Board is attempting to make toward its solution. The first chapter treats briefly of the agricultural depression during the past ten years. The second chapter summarizes the drive for farm relief. It is pointed out that other classes had been aided through "tariffs, immigration restriction, rail rate advances, fulfillment of government war contracts on a cost plus basis, and special labor legislation." There were also special acts in the interest of agriculture which were not, however, considered by the authors as relief measures. These were the Packer and Stockyards act, the Grain Futures act, the special use of the powers of the War Finance Corporation, the Capper-Volstead act giving special privileges to coöperative agencies, the Agricultural Credit act, and the Purnell act granting additional appropriations for research, especially in the field of agricultural economics and rural sociology.

A review is given of the efforts to secure legislation which would make the tariff effective on farm products of which we produce a surplus. The plans which centered in the equalization fee and the export debenture plan are briefly discussed; but the authors neglect to show how the grain trade representatives coöperated with the administration in promoting the Agricultural Marketing act as a means of sidetracking the bills which contained either the equalization fee or the export debenture plan. In the light of the attitude of the grain trade toward the Federal Farm Board in action, the omission of this interesting bit of history seems unfortunate.

Chapters 3 to 9 take up the various phases of the Act under which the Farm Board is operating and discuss them from the standpoint of the influence which the Board may bring to bear upon agricultural production and marketing. The authors believe that the Farm Board may be helpful if adequate discretion is used and if the limitations of coöperation in solving the farm problem are fully recognized. There are neces-

sarily high labor costs in the process of distribution "regardless of whether these services are performed by private or coöperative agencies."

The Federal Farm Board, through the indirect method of making loans to stabilization corporations, the stockholders of which are not liable for losses, has utilized what is called a "modified export debenture plan" of raising the price of wheat on the domestic market above that in the export trade. This proposal the authors believe is "nothing more or less than an export debenture plan conducted in a roundabout way"; and they note that domestic prices might be as effectively raised by the more simple and direct method of export bounties. However, the export debenture plan is not left without criticism.

It is shown that in the clearing-house associations promoted by the Board, the principle of the equalization fee has been accepted and utilized, particularly in connection with the California Grape Stabilization Plan. This plan proposes that each grower pay a fee of $1.50 per ton for the cost of handling a 300,000 ton surplus to be removed from the regular channels of trade. In speaking of this California plan, the authors say: "If one substitutes the term 'equalization fee' for 'stabilization fee' one will recognize the essential feature of the McNary-Haugen bills. The modification of turning the surplus into by-products or allowing the surplus to remain unharvested may, however, avoid international complications," which suggests a close parallel in the campaign for feeding wheat as a means of disposing of a part of the surplus production of this great staple.

In the final appraisal, it is believed that the Farm Board may be able to reorganize distribution to some extent, though no radical changes can be expected. Loans which the Board can make to coöperate are likely to stimulate the coöperative movement. The authors, however, do not accept the view that coöperation is a complete solution of the farm problem.

Two brief criticisms may be made. First, the authors seem to have fallen into the common error of assuming that even though prices of farm products are far below the level essential to bring into existence the current quantity of production, prices can not be enhanced without danger of increasing production. Second, the authors seem too readily to accept the view that the solution of the American farm problem lies in curtailment of production and the dismantling of much of our American agriculture rather than in the readjustment of our international economic relations on a basis that would provide an outlet for our agricultural surpluses.

In speaking of the tariff in its relation to the agricultural situation, a compliment is paid to those who initiated the McNary-Haugen movement:

"The granting of subsidies by stabilization corporations may have an ultimate bearing on the broad problem of establishing equality of opportunity for agriculture. The absurdity of making commodities expensive to consumers as a social policy will be revealed, just as the drive for the McNary-Haugen bill brought out the fact that the tariff was a joke to producers of export commodities. When the public finally comes to realize that subsidies, whether in the form of tariffs or bounties, benefit the few rather than the majority, something may be done to correct the situation. Perhaps the agricultural leaders are playing a shrewder game than most people realize."

In the opinion of the reviewer, this book should be read particularly by those whose information regarding agricultural relief measures, the work of the Federal Farm Board, the tariff and its relation to agriculture have come largely from journalistic sources.

H. C. Taylor

Burlington, Vermont

NEW BOOKS

Black, J. D., editor. *Research in public finance in relation to agriculture: scope and method.* Bull. no. 1. (New York: Social Science Research Council. 1930. Pp. iv, 174. 75c.)

This publication is the first of a series on scope and method in research in agricultural economics and rural sociology prepared under the direction of the Advisory Committee on Social and Economic Research in Agriculture, a sub-committee of the Social Science Research Council. Announcement of the series may be found among the Notes Section of this issue of this Review.

The objectives of this report are to delineate the field of research in agricultural public finance, "indicate its interrelations with other fields of research, outline its content, describe the research projects already undertaken in this field, point out additional projects that might be undertaken, review and evaluate the methodology employed in projects completed or under way, and suggest methods and procedures that may be used to advantage in different types of projects both new and old."

This is certainly a big undertaking considering the limited amount of experience of research workers in this field; but it must be said to the credit of the committee in charge of the project that the report is very suggestive of research opportunities in public finance as related to agriculture.

The presentation and analysis are greatly facilitated by use of the case method. Following a brief discussion of the objectives of research in the field of public finance, the scope of the field, basic principles and concepts, history of research and sources of data, the analysis proceeds on the basis of research projects. Representative projects selected from the various aspects of the field and arranged to some extent in the order in which a research agency might develop a program, are then analyzed in some detail as to their objectives, scope and methodology. The extent of the discussion of projects varies substantially depending largely on avail-

able information for them. This method of presentation necessarily results in some duplication, although serious inconvenience to the reader on account of repetition is avoided by cross references and by frequent citation to *Research Method and Procedure in Agricultural Economics*, a two-volume work prepared earlier under the direction of the same committee.

All groups interested in research in public finance will find this publication a valuable reference. Directors of research in agricultural economics as well as in the general field of public finance may obtain from it much assistance in the formulation of a research program. Teachers will be able to use it as a text for advanced classes in research method.

H. B. Price

Bowker, H. *A further survey of the farm problem.* Address before a group of farm paper editors, October 17, 1930. (New York: American Agric. Chem. Co. 1930. Pp. 22.)

Boyle, J. E. *Industry coöperation.* (Chicago: American Assoc. Creamery Butter Manuf., 110 No. Franklin St. 1930. Pp. 32.)

Address delivered at the annual convention of the American Association Creamery Butter Manufacturers, December 2, 1930. Discusses the defects of the Agricultural Marketing act.

Buck, J. L. *Chinese farm economy: a study of 2,866 farms in 17 localities and 7 provinces in China.* (Chicago: Univ. of Chicago Press. 1930. Pp. xii, 476. $5.)

Gee, W. *The place of agriculture in American life.* (New York: Macmillan. 1930. Pp. 217. $2.)

Gee, W., editor. *The country life of the nation.* (Chapel Hill: Univ. of North Carolina Press. 1930. Pp. xv, 214. $2.)

This compilation consists of the addresses delivered at one of the Round Tables of the Institute of Public Affairs, University of Virginia, 1929. The document is edited and the introduction written by Wilson Gee of the University of Virginia. It contains thirteen addresses by what may justly be called eminent authorities in different fields of rural life. The book consists of seven chapters: "Factors in the retention of farm wealth"; "The cityward drift of country populations"; "Farm group activities"; "The farm family"; "The country school with a social vision"; "Country community life"; "Open forum address," a paper by B. F. Yoakum.

No review can possibly detail all the "high lights" or even synopsize all the materials and viewpoints of the book; but a few of the outstanding, if not central, themes of the book may be stated. (1) "The main economic problem of the rural South is the vast volume of farm wealth produced from year to year and the small share of it remaining in the hands of farmers." (2) "Under economic pressure forcing a movement of population off the farm, persons are most likely to leave the farm in the following order: (a) hired man, (b) farmer's son, (c) share tenant, (d) cash tenant, (e) owner operator." (3) "Very largely the rural obstacles in the South are social conditions but in every instance they produce economic consequences that lower the levels of life for the vast majority of farm workers." (4) "Viewed from a purely selfish angle it is obviously the business of the nation to see that the producers of its 'bread' have all possible incentive to continue the pursuit of agriculture." (5) "Chained

in their helplessness they (the rural school teachers) are allowed to warp the plastic minds of little children, many of whom seek to find escape from the dreary surroundings as soon as they are able." (6) "The rural school, as a social institution is in a state of retarded development, either because it occupies the blind spot in the social eye, or because the vision of society is myopic, or both." (7) "If the small town would realize upon its opportunities it must not only begin by knowing its constituent community and its relations to neighboring towns, but it must pass to a second stage, namely specializing on reasonable tasks." (8) "The fundamental importance of the American farm life problem calls for serious questioning and planning for its relief on the part of all our thoughtful citizenship, both rural and urban."

It is such serious questioning as the last quotation calls for that the papers which constitute this volume postulate and discuss.

CARL C. TAYLOR

GLENNIE, A. E., compiler. *Index to the literature of food investigation.* Vol. II, no. 1. (London: H. M. Stationery Office. 1930. Pp. 108.)

HULBERT, A. B. *Soil: its influence on the history of the United States, with special reference to migration and the scientific study of local history.* (New Haven: Yale Univ. Press. London: Humphrey Milford. 1930. Pp. 227.)

KIRKPATRICK, W. H. *The seasonal distribution of farm labour requirements.* Cambridge Univ. Dept. of Agric., report no. 14. (Cambridge, England: W. Heffer. 1930. Pp. 44.)

LAUR, E. *Einführung in die Wirtschaftslehre des Landbaus unter besonderer Berücksichtigung der Landarbeitslehre.* 2nd ed. (Berlin: P. Parey. 1930. Pp. 346.)

LOGAN, L. M., JR. *Stabilization of the petroleum industry.* (Norman: Univ. of Oklahoma Press. 1930. Pp. 248. $2.50.)

In this monograph Professor Logan gives the background out of which has grown the present overproduction problem in the oil industry, and discusses the problem itself and some of the main proposals offered for its solution. He presents here a great deal of information bearing on the petroleum industry and particularly on the recent efforts at stabilization, or, perhaps more accurately, at reasonable regulation of output. The point of view is not mainly that of conservation, and a generally friendly attitude toward the oil industry is preserved everywhere.

The book is loosely constructed, replete with long quotations, and at various points the discussion proceeds on the basis of weird theories of economics; nevertheless it is a valuable contribution to the rapidly growing literature on the petroleum problem.

JOHN ISE

MACEDO SOARES, J. C. DE. *Rubber: an economic and statistical study.* (New York: Richard R. Smith. 1930. Pp. 104. $3.)

MARSHALL, R. *The social management of American forests.* (New York: League for Industrial Democracy, 112 E. 19th St. 1930. Pp. 35.)

MERRILL, C. W. *Economic relations of silver to other metals in argentiferous ores.* Bureau of Mines econ. paper 10. (Washington: Supt. Docs. 1930. Pp. 29. 10c.)

———. *Summarized data of silver production.* Bureau of Mines econ. paper 8. (Washington: Supt. Docs. 1930. Pp. 58. 20c.)

Nordegg, M. *The fuel problem of Canada.* (Toronto: Macmillan. 1930. Pp. x, 155.)

The "fuel problem" is primarily a problem of the coal industry, although something is said about other fuels. Part I, which purports to review the "present state of the fuel problem," contains numerous strictures, often unwarranted and usually unsupported, about what has been done by governments to solve the "problem." Possibly the authorities have fumbled the job, but certainly they are entitled to more sympathy than the author gives them. Part II puts forth "possible solutions of the fuel problem." A great number of suggestions are offered with much assurance and without regard to their mutual consistency. Some of them must be good, some are obviously bad and many are impracticable. But in no case is a reasoned or adequate analysis offered in their support.

J. A. Maxwell

Orwin, C. S. *The future of farming.* (New York: Oxford. London: Humphrey Milford. 1930. Pp. 160. $2.)

———. *Progress in English farming systems.* IV. *Another departure in plough farming.* (Oxford, England: Clarendon Press. 1930. Pp. 16.)

Pavlovsky, G. *Agricultural Russia on the eve of the revolution.* (London: Routledge. 1930. Pp. 340.)

Penrose, E. F. *Food supply and raw materials in Japan: an index of the physical volume of production of foodstuffs, industrial crops and minerals, 1894-1927.* (Chicago: Univ. of Chicago Press. 1930. Pp. 75. $2.)

Peterson, C. W. *Wheat—the riddle of markets: a brief study of the production, sale and consumption of wheat.* (Calgary, Canada: Farm and Ranch Review. 1930. Pp. 121.)

Pilz, H. *Die indische Baumwollindustrie: Produktionsgrundlagen, Entwicklung vor und nach dem Weltkriege, soziale Fragen, Zollpolitik.* (Berlin: Julius Springer. 1930. Pp. vii, 188. R.M. 12.)

Ramsey, E. *The history of tobacco production in the Connecticut Valley.* Studies in hist., vol. 15, nos. 3 and 4. (Northampton, Mass.: Smith College. 1930. Pp. 95-206.)

Roth, H. *Die Ubererzeugung in der Welthandelsware Kaffee im Zeitraum von 1790-1929.* Beiträge zur Erforschung der wirtschaftlichen Wechsellagen Aufschwung, Krise, Stockung, Heft 2. (Jena: Fischer. 1929. Pp. viii, 146. Rmk. 6.)

This historical study in commodity economics is one of a series which is edited by Artheur Spiethoff of Bonn University.

Dr. Roth endeavors to ascertain the types of overproduction which the history of the coffee industry reveals during the period under consideration. Incidentally, the prognosis of future trends based on 140 years of experience is also attempted. The type distinction here used is that given by Professor Spiethoff in his article on "Krisen" in the *Handwörterbuch der Staatswissenschaften.* The objective of the analysis is the discovery of forces which lead to periodical overproduction of coffee. The study, therefore, may well serve as a basis for a clearer understanding of the problems which beset the coffee industry and as the key to a sounder policy through which these problems are to be dealt with.

As is to be expected, the study begins with a brief discussion of the physical and technical elements of the coffee industry and concentrates on the peculiar nature of coffee as a perennial. It is this emphasis on the characteristics of coffee as a perennial which gives to the work a significance far greater than a study of coffee would be entitled to claim, if considered merely for its own sake. It is a type study in the field of the economics of perennials. By making necessary allowances for the peculiarities of both the supply and the demand aspects of each case, the principles illustrated by the case of coffee can be applied to the study of other perennials.

Erich W. Zimmermann

Rowe, J. W. F. *Studies in the artificial control of raw material supplies. No. 1. Sugar.* Part 1. *Sugar industry of Cuba.* Part 2. *Marketing of Java sugar.* Memorandum no. 23. (London: Royal Econ. Soc. 1930. Pp. 60.)

Rozman, D. *Part-time farming in Massachusetts.* Bull. no. 266. (Amherst, Mass.: Agric. Experiment Station. 1930. Pp. 104-146.)

Sarker, N. R. *The jute crisis. Proceedings of conference, October 17, 1930.* (Bengal: National Chamber of Commerce. 1930. Pp. 19.)

Sering, M., editor. *Die agrarischen Umwälzungen im ausserrussischen Osteuropa.* (Berlin and Leipzig: Walter de Gruyter. 1930. Pp. 493.)

Snodgras, K. *Margarine as a butter substitute.* Fats and oils studies no. 4. (Stanford Univ., Calif.: Food Research Institute. 1930. Pp. xiv, 333. $3.)

Strong, A. L. *L'agriculture soviétique moderne.* (Paris: Bureau d'Editions.)

Thomsen, F. L. *Agricultural prices.* (Columbia, Mo.: Stephens Pub. Co. 1930. Pp. 203.)

Ukers, W. H. *Coffee merchandising: a handbook to the coffee business giving elementary and essential facts pertaining to the history, cultivation, preparation and marketing of coffee.* 2nd ed. (New York: Tea and Coffee Trade Journal Co. 1930. Pp. 245.)

Voskuil, W. H. *Minerals in modern industry.* (New York: Wiley. 1930. Pp. ix, 350. $3.75.)

Westcott, J. H. *Oil: its conservation and waste.* 4th ed. (New York: Beacon Pub. Co. 1930. Pp. xiii, 273.)

This book—a real new edition and not a reprint—might perhaps better have been named *An Apology for the Oil Industry;* and as such it is well worthy of the attention of economists. The author starts out with the assumption that the oil industry is "the least understood and most unpopular of all the industries," and proceeds to describe the technological progress in the industry in recent years, particularly the development of refining methods—truly an interesting if not an amazing story. He closes with a plea for unit operation or some other method of coöperation, to avoid the wastes of competitive drilling and overproduction.

The author's attitude toward the oil industry is definitely favorable. "No defense or excuse is needed by the oil industry. It does not require propaganda in its favor. Its long record of development and progress is one of which any industry may well be proud. It has not only resulted in

the conservation of petroleum and natural gas, but the progressive oil companies have found it to the benefit of their stockholders to prevent all waste and to utilize the raw material in its present most economic form, gasoline."

The word "conservation" is given a decidedly liberal construction here. It seems that improvements in refining methods are regarded as conserving the total amount of crude oil that would have been required with earlier methods, above the amount required with the improved methods. Thus, in the period from 1916 to 1929, the total amount "conserved" through increased efficiency of refineries and reduction of evaporation losses, cracking and the production of natural gasoline, was 8,883,300,000 barrels, or 102.9 per cent of the total production during those years. In short, a little more than all of the oil produced was conserved! This seems as much as could be expected of any industry. Of course the writer does not mean just this, but he evidently means to credit the oil industry with some wonderful conservation activity. And the end is not yet. "While it is difficult to conceive of much greater progress, there seem to be no impossibilities for the oil men and further advances will be made."

JOHN ISE

WHITE, A. G., and others. *Oil conservation and fuel oil supply.* (New York: National Industrial Conference Board. 1930. Pp. xiv, 165. $2.50.)

This work is in the main a thoughtful discussion of the present technical situation in the oil industry. There is careful statistical analysis of the sources of modern energy, coal, fuel oil, gasoline, kerosene, natural gas and hydro-electric power, and of the nature of the competition among them; of the supply and consumption of fuel oils, for the United States and for the world, and finally of the effects of a possible decline in fuel oil supply. The conclusion is reached that since the supply of crude oil is limited, from the standpoint of future needs, and since the motor fuels and lubricants are the more essential products, there will be a tendency to "crack" more of the high grade products out of the crude oil, and thus scarcity will appear first in the low grade products, particularly fuel oil. Whereas refiners now recover about 39 per cent of gasoline from the oil, a 60 per cent recovery is feasible; and under the new hydrogenation process, which has been applied to oil as well as coal, virtually 100 per cent of the crude oil can be converted into high grade products whenever it is worth while to do it.

To economists this book should be of great value, not only for its bearing on the question of conservation, but for its illustrations of the competitive process, and even more particularly of the laws of joint cost and joint demand.

JOHN ISE

WYLLIE, J. *Investigation into farming costs of production and financial results.* VIII. *General report on six years' results.* IX. *Pig keeping costs and financial results for six years.* Reports no. 8 and 9. (Wye, Kent, England: Southeastern Agric. College. 1930.)

YOUNG, W. H. *Sources of coal and types of stokers and burners used by electric public utility power plants.* Report of the Institute of Economics in coöperation with the U. S. Geological Survey. (Washington: Brookings Institution. 1930. Pp. 79. 50c.)

Agricultural coöperation in England: a survey. (London: Routledge. 1930. Pp. 272.)

The agricultural outlook for the southern states, 1930-31. U. S. Dept. of Agric., misc. pub. no. 102. (Washington: Supt. Docs. 1930. Pp. 56. 10c.)

American cotton. Annual review, August 28, 1930. (Manchester, England: Manchester Guardian. 1930. Pp. 24.)

Armour's farmers' almanac, 1931. Vol. XXXIII. (Chicago: Armour Fertilizer Works. 1930. Pp. 40.)

Chemical and mineral resources of the Saint Louis industrial district. (St. Louis: Industrial Club of St. Louis, 511 Locust St. 1930. Pp. 34.)

The dissemination of research results among agricultural producers. Answers to a questionnaire issued by the Empire Marketing Board. (London: H. M. Stationery Office. 1930. Pp. 143.)

Farmers build their marketing machinery: the Agricultural Marketing act helps in developing coöperative program open to all growers. Bull. no. 3. (Washington: Federal Farm Board. 1930. Pp. 59.)

Forest and range resources of Utah: their protection and use. U. S. Dept. of Agric., misc. pub. no. 90. (Washington: Supt. Docs. 1930. Pp. 102. 30c.)

Historical summary of gold, silver, copper, lead, and zinc produced in California, 1848 to 1926. Bureau of Mines econ. paper 3. (Washington: Supt. Docs. 1929. Pp. 22. 5c.)

Oil conservation and fuel oil supply. (New York: National Industrial Conference Board. 1930. Pp. xiv, 165. $2.50.)

Staple length of Texas cotton crops of 1928 and 1929: a preliminary report. (Washington: Supt. Docs. 1930. Pp. 14, mimeographed.)

A survey of the farm problem, with particular reference to wheat production costs. (New York: American Agric. Chem. Co. 1930. Pp. 16.)

Wheat futures: volume of trading, open commitments, and prices from January 3, 1921, to December 31, 1929. U. S. Dept. of Agric., stat. bull. no. 31. (Washington: Supt. Docs. 1930. Pp. 212. 35c.)

Wheat studies. Vol. VI. No. 10. *The changing world wheat situation: a statistical appraisal in terms of averages, trends and fluctuations.* Vol. VII. No 1. *The United States wheat flour export trade.* (Stanford Univ., Calif.: Food Research Institute. 1930. Pp. 421-457; 1-83.)

Manufacturing Industries

NEW BOOKS

FLÜGLER, A. *Tabakindustrie und Tabaksteuer unter besonderer Berücksichtigung der Zigarette.* (Jena: Fischer. 1930. Pp. viii, 516. Rmk. 24.)

FONG, H. D. *Rayon and cotton weaving in Tientsin.* Bull. no. 2. (Tientsin: Nankai Univ. Committee on Social and Economic Research. 1930. Pp. 79.)

LUPIN, F. F. VON. *Die indische Textilindustrie als Industrie eines kolonialen Rohstofflandes.* Probleme der Weltwirtschaft, Band 49. (Jena: Fischer. 1930. Pp. xxvii, 352. Rmk. 21.)

MURCHISON, C. T. *King Cotton is sick.* (Chapel Hill: Univ. of North Carolina Press. 1930. Pp. 198. $2.)

Ryan, P. *Annual statistics of the manufactured gas industry in the United States.* Stat. bull. no. 8. (New York: American Gas Assoc. 1930. Pp. 31.)

Shumway, H. *I go South: an unprejudiced visit to a group of cotton mills.* (Boston and New York: Houghton Mifflin. 1930. Pp. vi, 90. $2.)

This little book of impressions gathered during a brief visit to a group of five mills in Alabama, in the autumn of 1929, is agreeably written, but is superficial in the extreme. It was undertaken at the request of the Boston company which is selling agent for the mills; and Mr. Shumway saw little which was not flattering to the management. His honesty need not be questioned. He was chosen because he had no previous acquaintance with the subject; this was not necessarily a fatal handicap, but his failure to appreciate economic implications has rendered his effort, to the student, of little service.

Broadus Mitchell

Stevens, J. M. *New Jersey manufactures, 1899-1927.* Bull. no. 2. (New Brunswick: Rutgers Univ. Bureau of Econ. and Bus. Research. 1930. Pp. vi, 61. 50c.)

Ware, C. F. *The early New England cotton manufacture: a study in industrial beginnings.* (Boston and New York: Houghton Mifflin. 1931. Pp. 349. $3.50.)

Annual statistical report of the American Iron and Steel Institute for 1929. (New York: American Iron and Steel Institute. 1930. Pp. vi, 119.)

Census of Production Office. Final report on the third census of production of the United Kingdom (1924): the textile trades. (London: H. M. Stationery Office. 1930. Pp. 285.)

Central electric stations in Canada. Census of industry, 1928. (Ottawa: H. M. Stationery Office. 1930. Pp. 62. 25c.)

Great Britain Economic Advisory Council. Report of the Committee on the Cotton Industry. (London: H. M. Stationery Office. 1930. Pp. 31.)

Transportation and Communication

The St. Lawrence Waterway Project. By George W. Stephens. (Montreal, London and New York: Louis Carrier. 1930. Pp. 460. $7.50.)

When a writer whose mind is thoroughly made up regarding a controversial question produces a considerable book thereon, and yet manages to reserve definite statement of his own convictions for the final chapter, the fact deserves comment. But when the view held—in this instance, a favorable judgment on the St. Lawrence waterway proposal—is embraced so whole-heartedly that doubters are censured for their unwisdom or bias, the reader may wish that the grounds of this conviction had been more adequately stated, the more especially in this case since the viewpoint is Canadian. Prior to the concluding chapter, the economic feasibility of the waterway is treated only in the latter part of Chapter 5, where the account of recent negotiations, recommenda-

tions, hearings, and press comment provides an effective and quite impartial listing of issues and arguments. Arguments on both sides are again outlined in Appendix 5. Otherwise the wide range of historical and descriptive material presented is related to the current controversy mainly as background.

The author has traced in considerable detail the history, from 1713 to 1929, of all boundary treaties; the growth of rail and water transportation in Canada and the United States; the disposition of other international waterway situations; the physical aspects of the St. Lawrence power and navigation project, together with cost estimates for single and two-stage development; the deepening of the channel from Montreal to the ocean; the history of the present project from 1832 to date; the history and character of Canadian canals generally and of United States canals in the boundary section; the Chicago diversion controversy from its origin to the present; the physical features of possible alternative routes, including those via Hudson Bay, Georgian Bay, New York State, and a Great Lakes-Mississippi connection; and, finally, the power situation in both countries. Considerable light is thrown upon those political and legal aspects of the project which arise from its international character, from the questionable authority of federal governments to speak for states and provinces on power matters, and from divergent sectional attitudes in both countries. The author urges that past outlays of Canada in providing the Welland and St. Lawrence canals, and the prospect of greater immediate benefit to the United States, should affect substantially the division of cost.

With earlier chapters neglecting to support a number of assumptions on transport matters, the concluding "reflections" are less persuasive than they might have been. Had water transportation been less indiscriminately praised—had its occasional inordinate costliness been recognized unmistakably—the favorable verdict on the St. Lawrence project would possess greater authority. To hold, for example, that the "the Panama Canal has almost paid for itself" because aggregate tolls nearly equal original cost (p. 373); to report a saving of $1 per ton on traffic via the Barge Canal without stating the cost per ton to New York taxpayers (p. 300); or to assert, because a 27-foot canal will accommodate vessels five times as capacious as will a 14-foot canal, that it is "five times as efficient" (p. 385), is to suggest that interest and maintenance expenditures in connection with a waterway are not costs of transportation—a view which, if held, would disqualify one for serious discussion of waterway economy. While it is significant that restrictive channels will not keep ocean vessels from visiting the lakes, it is more essential to know how difficulties of navigation, and especially the short open season, will affect the freight rates, and thus determine the gain to shippers.

If doubts are entertained regarding these gains, they will hardly be dissolved, in these days of adequate railway regulation and inadequate railway earnings, by casual references to reductions in rail rates due to water competition. Probable volume of traffic is as vital as the saving per unit; but here also it is unconvincing to repeat the war-time generalization that American railways are hopelessly overburdened. So far as agricultural exports are concerned, the tendency south of the border to reduce production to home-market requirements is not considered; nor is the availability of the proposed waterway in the handling of late-harvested Canadian wheat discussed. But the "obvious possibilities" of a tremendous growth of Canadian industry are plausibly presented; and to the very practical consideration that the Canadian people already support an under-utilized railway system, the reply is offered that Canada will some day need all the transportation she can get.

But the necessity of resting his case so largely upon the future leads the writer to qualify his approval temporarily. Speaking of the total power and navigation project, he says (p. 387): "Even a best friend could not ask Canada to assume an obligation like this at the present time." It is to be observed that opponents of the scheme are not condemning it into perpetuity. A proposition upon which all might agree is that, with the Welland Canal already deepened, and with the Beauharnois Power Company providing the Dominion with fifteen miles of deep-water navigation, it is probable that future power development and attendant industrial growth will create incidentally sufficient waterway and sufficient tributary traffic so that the remainder of the navigation scheme will seem a much less formidable undertaking than it now appears.

Shorey Peterson

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NEW BOOKS

Hedges, J. B. *Henry Villard and the railways of the Northwest.* Wm. McKean Brown Found. pub. no. 6. (New Haven: Yale Univ. Press. Pp. 224. $3.)

MacDonald, A. F. *Airport problems of American cities.* Annals, vol. 151, suppl. (Philadelphia: American Acad. of Pol. and Soc. Science. 1930. Pp. iv, 316. $2.)

Miller, C. A. *The legislative evolution of the Interstate Commerce act.* (Rochester: Lawyers Coöperative Pub. Co. 1930. Pp. 480. $7.50.)

Rèpaci, F. A. *La gestione delle ferrovie dello stato nel sessennio 1923-1924—1928-1929.* (Turin: Frat. Pozzo. 1930. Pp. 53. L. 7.)

Thompson, S., editor. *Railway statistics of the United States of America for the year ended December 31, 1929, compared with the official reports for 1928 and recent statistics of foreign railways.* (Chicago: Bureau of Railway News and Statistics. 1930. Pp. 137.)

WU, S. T. *Railroad valuation and fair return: a study of the basis, rate, and related problems of fair return for American railroads.* (Philadelphia: Univ. of Pennsylvania Press. 1930. Pp. xxiv, 233. $3.)

Dr. Wu's study, with a foreword by Professor Emory R. Johnson, deals with "the basis, rate, and related problems of fair return for American railroads," in their relationship to the "rule of rate-making" of the Transportation act. The discussion of "fair value," as the basis of return, is largely confined to a brief analysis of the outstanding merits and defects of original cost and cost of reproduction, with summary reference to the problem of depreciation and the treatment of intangibles. Conflicting claims are carefully balanced, but without much aid, by way of definite conclusion, as to means of removing the existing confusion in matters of valuation. While it is recognized that "a prompt and somewhat definite settlement of the valuation controversy is preferable to years of tedious and expensive litigation," fair value is declared to be "neither the original cost nor the replacement or reproduction cost," being made to depend upon the "equitable consideration" of all elements of value recognized by the law of the land (pp. 188, 189). The rate of return is analyzed into its component elements of interest and profits, and the dominant criterion of fairness is found in its adequacy "to attract capital and business ability into the railroad field and to hold them there" (p. 100). On this basis the statutory rate of return receives the author's approval.

The "related problems," which constitute the concluding part of the study, concern the recapture of excess income, and, more briefly, other measures designed to reduce inequalities in railroad earnings, such as control of rate divisions, consolidations, rate-making territories, financial reorganization, and extensions and abandonments. The practical difficulties incident to the enforcement of the recapture clause are noted, and it is proposed that the earnings of the carriers be averaged over a period of years for purposes of recapture; but repeal of the recapture clause is deemed undesirable, "unless a better rule of rate-making is worked out" (p. 142). As to the general program for equalization of earnings, "it is the causes of inequalities rather than the inequalities of earnings that should be eradicated" (p. 163); and public policy toward this end must be guided by the circumstances and conditions of each individual case. Finally, although an analysis of financial returns shows that "the railroads in the United States during the nine years from 1921 to 1929 have not yet earned the fair rate of return permitted by law" (p. 195), and that "at present the railroad earnings are lower than they should be, in the public interest" (p. 196), the author concludes: Efficiencies and new methods have reduced the cost of transportation, and freight rates show a continuous descending line from the level of 1920. As a whole, there is no financial emergency. Railroad failures and receiverships have been reduced, stock dividends increased, and the average prices of railroad securities have continually advanced. The average yield for the total investment of the railroads has been somewhat less than the cost of railroad capital borrowed under the Transportation act. Yet, the railroads have since 1920 invested no less than seven and a half billion dollars in their properties, and railroad securities have become increasingly secure as high-grade investment. . . . The future of railroad earnings

is not without promise, although hope for higher rates and lower wages is remote. To a large extent, the railroads will have to rely upon further reduction of transportation costs in order to enhance their earnings. A stabilization of general business, a decline of interest rates or prices, or a continued heavy volume of traffic may also help. The difficulties of the problem of securing for the railroads a fair return on the value of their property without involving the government in the obligation to guarantee and without imposing upon the public the burden of unreasonable rates are doubtless great, but they are not insuperable" (pp. 195-196).

Taken as a whole, this study, which, even as a general survey rather than an intensive analysis, is least adequate on the problem of valuation, throws considerable light on the nature and significance of the regulatory tasks in this sphere. While it is confined to the "high spots," with little that is new either in the materials presented or in their treatment, and while there is often difficulty in determining the attitude of the writer on controversial issues, the discussion is well organized, clear, accurate, and marked by praiseworthy balance and restraint.

I. L. Sharfman

Associated Traffic Clubs of America: eighth annual meeting held at the Hotel Gibson, Cincinnati, Ohio, April 24 and 25, 1930. (New York: Committee on Public Relations of the Eastern Railroads, 143 Liberty St. 1930. Pp. 58.)

Associated Traffic Clubs of America: report of the ninth annual meeting at Atlanta, Georgia, October 8 and 9, 1930. Reprinted from *The Traffic World,* October 11, 1930. (Chicago: Traffic Service Corp., 418 S. Market St. 1930. Pp. 26.)

An economic survey of inland waterway transportation in the United States. Spec. ser. no. 56. (Washington: Bureau of Railway Econ. 1930. Pp. 238.)

This book does three things. It sets forth the present status of inland waterway projects and President Hoover's program for their development. It brings together a considerable amount of data relative to mileage, traffic, and federal expenditures on inland waterways. And it emphasizes the need for taking into account inclusive costs when comparing rail and water transportation systems. Especially valuable as ready reference material are the sections dealing with federal control of waterways during the World War, the coördination of water and rail service, the Denison act of 1928, and the Rivers and Harbors act of 1930.

The final chapter takes up four inland water routes, the Mississippi River, the Missouri River, the Ohio River, and the New York State Barge Canal, and seeks to show in each case that the actual cost of transportation per ton-mile of traffic is greater for the water route than it is for the rail lines serving the same territory. In computing the capital costs for the first three of these cases, the authors take into account all federal expenditures on capital account for the period 1824-1929. This going back a full century to arrive at capital costs for existing navigation routes seems to the reviewer unfair to water transportation. A practical view of the problem suggests that expenditures of the last century be written off against the traffic of that period and that present navigation

routes be charged only with capital expenditures which are made on behalf of "existing projects." In the case of the New York Barge Canal this is the method followed by the authors.

ADAH L. LEE

Where freight rates and passenger fares go: a popular statement of the income and expenditures Class I American railroads. No. 6. (New York: Committee on Public Relations of the Eastern Railroads. 1931. Gratis.)

A yearbook of railroad information, 1930 edition. (New York: Committee on Public Relations of the Eastern Railroads, 143 Liberty St. 1930. Pp. 94.)

Trade, Commerce, and Commercial Crises

International Control of Raw Materials. By BENJAMIN B. WALLACE and LYNN R. EDMINSTER. (Washington: Brookings Institution. 1930. Pp. xv, 479. $3.50.)

The issues presented by the occurrence, within the confines of a single political jurisdiction, of important raw materials of industry and by the actual or potential governmental control of the supply of such materials have long required comprehensive and impartial treatment. The present book, laterally at any rate, disposes of the matter, and, with one possible exception, is markedly free from nationalistic bias. The exception referred to is found in the authors' refusal to put protective import tariffs in the same category with other types of foreign trade control. It is true that they disclaim any intention of making a distinction between the two except on the ground that protective import tariffs are more widespread, more firmly entrenched, less likely to yield to an assault than are other forms of control. Nevertheless, to "barbarian" critics this will certainly seem to take a good deal of the shine off the armor of impartiality. In effect, it results in a proposal to leave protective import duties alone but to curb the exercise of other types of interference with laissez-faire. This will no doubt be satisfactory to political groups which are desirous of using the one and not the other, but it scarcely meets the Kantian test of virtue.

The reviewer submits that there is, in fact, no ethical basis for protest against governmental action in the control of raw materials (whether or not such control includes price discrimination) so long as protective import duties of any type are assumed to involve merely a legitimate exercise of sovereignty. For this reason it was questionable wisdom to direct the argument, as it is directed in this book, wholly toward the progressive elimination of governmental control of raw materials through the sweetness and light engendered in international conventions. Rather than point the discussion in this direction, if protective import duties are not to be included in the list of controls, it seems that it would have

been more profitable to explore much more fully than has been attempted the actual and potential economic effects of existing and possible controls, the economic checks upon the exploiter, and the defenses to which the exploited could resort. In several of the cases investigated, however, the authors are content to show that American consumers must have paid more for certain controlled commodities than would have been the case if the control had not been instituted by the foreign country engaged on the producing side, or that some specific American industry has been, or may be, injured by such control. This is good reason for self-reliant defensive action on our part, but it is surely wet powder to take into an international convention largely composed of representatives of countries whose nationals have suffered frequent and severe injury as a result of increases in our protective tariff. No good can issue from such conventions unless the parties come into court with clean hands; and no nation which will not abandon protective import duties can properly demand anything more than that sellers shall show no discrimination between *foreign* buyers of any given raw material. Even the latter demand is not open to countries with other than a single-line tariff—and there are, in any event, almost no cases in which it would be of much importance. If protective import duties are to be a sacred cow, the prospect of securing, by persuasion, the abandonment of other forms of control is, therefore, just about nil.

The question may well be raised as to whether governmental control of raw material exports has not occasioned more acrimony and alarm than it really warrants. As consumers, we do not, of course, relish *private* monopolies in the production of any commodity, but we manage to struggle along in the presence of a good many of them. Is the case altered very radically when the monopoly is attained by governmental rather than private action? If a distinction is attempted on the assumption of the possibility of war, the answer is that, whether or not governmental control of essential materials of war exist in peace time, it will certainly be put into effect against enemies on the outbreak of hostilities. There seems to be no reason, therefore, for *special* excitement over governmental monopolies.

Against private and public monopolies alike the principal defenses are economic. They comprise potential competition, substitution, and the operation of the principle of maximum net return. All three can, however, be reinforced by such political action on the part of consumers as will bring the economic checks into early operation. But we can be sure that there will be no voluntary and unrequited relinquishment of a really profitable opportunity for exploitation of consumers or, so long as mercantilism is dominant, of the use of export duties on monopolized raw materials for the purpose of promoting domestic manufactures.

Many governmental controls have been, or are in process of being, discredited by their ultimate consequences. Of the major controls studied in this book this is true of Chilean nitrate, Brazilian coffee, British Malayan rubber, and Japanese camphor, as well as of the projects of our own producers of copper under the aegis of the Webb-Pomerene act. In such cases the best course for the consumer is probably to wait, with such patience as he can summon, for the control schemes to break down of their own weight. The effects of the more successful measures, such as those which have been applied to Franco-German potash and British Empire tin, might be mitigated by negotiation, provided consuming nations were ready to offer a reasonable *quid pro quo*, or by retaliation. Retaliation is perhaps properly rejected by the authors; but their attempt to set up criteria of equity as a basis for the restriction of restrictions is hopeless from the start. Taking simply one example, *viz.*, that a national monopoly should not exact from foreign consumers a price which will yield more than ordinary returns in the country in question, it should be pointed out that a successful national monopoly charging all that the traffic would bear would itself tend to raise the *whole level* of profits (and perhaps of wages) in the country where it was situated. The returns in the national monopoly industry (which might be, and frequently is, composed of individual producers in sharp competition) would then not be above the level of other industries in the country, though foreign consumers would surely have been subject to exploitation. Criteria of equity in this field are elusive in the extreme, while the search for equity itself is simply quixotic.

Exception having been taken to the objectives of the book, it is only fair to state that the description of the various controls which have been exercised in the past half century is excellent. The principal commodities to which they have been applied have been indicated in the foregoing discussion. A valuable series of appendices to the book includes, however, a rather more comprehensive list arranged in chronological order of the inauguration of control, as well as a list of the more important relevant documents, some statistical tables bearing on the questions in issue, and an all too brief discussion of the incidence of an export tax.

It should be noted that one of the authors, Mr. Wallace, is, in the preface, exempted from any responsibility for the conclusions expressed in the book as issued.

Frank D. Graham

Princeton University

NEW BOOKS

Huebner, G. G. and Kramer, R. L. *Foreign trade: principles and practices.* (New York: Appleton. Pp. 823. $5.)

Ischboldin, B. *Die russische Handelspolitik der Gegenwart: ein kritischer Beitrag zum bolschewistischen Wirtschaftssystem.* Band III. (Jena: Fischer. 1930. Pp. xii, 240. Rmk. 12.)

Mitchell, W. C. *Der Konjunkturzyklus.* Edited by E. Altschul. (Bonn and Leipzig: Kurt Schroeder. 1931. Pp. 528. R.M. 28.)

Smith, D. H. *Economics of empire trade.* (London: Routledge. 4s. 6d.)

Commerce and manufactures. (Washington: Supt. Docs. 1930. Pp. 57. Gratis.)

A new edition of the price list covering publications relating to commerce and manufactures, many of which deal with commercial affairs in foreign countries, particularly in Latin America.

Hampton Roads Port traffic survey: studies of selected import and export commodities. Doc. no. 14. (Richmond: Virginia State Chamber of Commerce. 1930. Pp. 54.)

Virginia foreign trade directory. Doc. no. 12. (Richmond: Virginia State Chamber of Commerce. 1930. Pp. 83.)

Accounting, Business Methods, Investments and the Exchanges

Life Expectancy of Physical Property, Based on Mortality Laws. By Edwin B. Kurtz. (New York: Ronald. 1930. Pp. xiv, 205. $6.00.)

This book is the record of a progress survey into what is still a somewhat new field as regards units or groups of physical property. The viewpoints of the accountant, the engineer, perhaps the economist, are reflected in somewhat even though minor degree; the approach to the subject, and its treatment through a more or less intricate analysis, are mainly from the standpoint of the actuary. The author very properly refers to what may be called his running start in this field of inquiry:[1] "Recognizing this absence of mortality data, some fourteen years ago the author began to search out and compile such records as could be secured. . . . . The study and analysis to which these various mortality tables have been subjected, have produced this book. The life characteristics of actual physical property were calculated and analyzed and such relations as could be readily discovered were noted. This is the most fundamental and valuable part of this treatment, as it is the first time that these relations have been set forth for physical property. Many of these relations may prove to be laws, and so permit of a scientific determination of the life expectancy of equipment and its attending problems.

[1] An engineering thesis (1917), published in part in *Administration*, vol. ii, pp. 41-70, July, 1921; an article on "Replacement Insurance" in which was advocated "actual insurance as a scientific plan for making provision for replacements of physical property in an industrial enterprise." (The phase of depreciation (of value) sometimes referred to as lack of newness, which received considerable emphasis in the initial studies as embodied in the thesis, is largely left in abeyance in the formal book now issued.)

In any event, the data presented are available for use, and cover a wide range of structures and machinery." These and further words expressing the author's estimate of what he has accomplished in this interesting quest warrant some examination of the diversity and completeness of that link in the chain which is related to the basic mortality data used in these studies.

During the intervening period the author was able to expand the range of the mortality tables from 17, the number embraced in his initial studies (1917), to a total of 52 tables, in part given as illustrative tables and charts in the book. These are here recounted from the author's classified list (slightly restated):

	Tables	*Kinds*
I. Water supply systems: sources; pumping stations; pumps and pumping engines (2); boilers	5	4
II. Telephone: switchboards; office equipment; loading coils; poles; cables (10)	14	5
III. Telegraph: poles (5)	5	1
IV. Electric: poles (2); lamps (4)	6	2
V. Railroad: stations; locomotives; passenger cars; freight cars (4); car wheels; crossties (14)	22	6
	52	18

The "18 kinds" (designations—actually 16, say, counting duplications), in view of the type of analysis adopted in the book, give a misleading impression of the diversity or range of the data as a whole; but the author plainly feels the need of a material further expansion of scope, judging from the following: ". . . . Undoubtedly, the information for many more such tables exists in the files of industrial and appraisal engineers, public and industrial accountants, and in the records of public service commissions, utilities, and industries. As the value and usefulness of a knowledge of the life characteristic of physical property become more manifest, it is quite likely that many additional data will be made available." Notable in the omissions are the extremely long-lived kinds of property, such for example as cast-iron distribution mains in gas and water works properties which make up so large a proportion of the inventory as a whole (around one-half in a property like the Indianapolis Water Company's physical plant).

However, the author is to be commended for his decision to release the results of his survey as a progress report, rather than wait longer for the further mortality data to be derived or to be enticed into the open. This tedious development in mortality data may be likened to what took place in the earlier period of inquiries into human mortality data,—with successive stages, from which finally emerged the theories and practice of the actuarial profession as now known. After a pioneering

period of a century and more came the widely accepted Carlisle tables; at the end of a second century came the organization of the British Institute of Actuaries (1850) with its official *Journal*, which promptly became the forum for spreading what was meritorious in the old and for trying out what was promising in the new. The influence of that forum, or arena, was thus estimated after the first quarter century (by Sprague, then editor of the *Journal*): "(1) Any supposed improvement in the theory was effectually submitted to the criticisms of the whole actuarial profession and its real value speedily discovered; (2) any real improvement, whether great or small, being placed on record, any successive writers have been able, one after the other, to take up and develop it, each commencing where the previous one left off. The result has been: great advances in the theory." The author, borrowing the methods of the actuary in attacking this fresh problem, would doubtless welcome a similar swift try-out on merit of what he has produced. Unfortunately the forward flow of the two currents in what might be termed parallel channels, regarded in the professional sense, may not easily be brought into practical contact. In any event, it seems more likely that what the author proposes as the outcome of these studies must find an arena in actual practice of accountants and engineers, and before public regulating bodies and the courts. This is true of the surviving best in the practice of the past and present in related lines; it is difficult to believe that this fresh approach to an old problem will prove an exception to the rule.

William D. Pence

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NEW BOOKS

Alger, F. R. and Robins, W. F. *Bliss-Alger bookkeeping and accounting theory and practice: a treatise on bookkeeping and accounting, combined with business practice and banking for schools of business.* (Saginaw, Mich.: Bliss Pub. Co. 1930. Pp. 214.)

Babson, R. W. *Investment fundamentals.* (New York and London: Harper. 1930. Pp. viii, 338. $3.)

In writing primarily for the average investor who knows little regarding the principles of investment and the pitfalls of speculation, Mr. Babson restates many of the fundamentals which he has stressed for years. He includes chapters on the bank account, life insurance, stocks and bonds, real estate, and investment trusts. There is an abundance of wholesome advice in these chapters. The various sources of financial information are described briefly with less emphasis on the Babson services than might have been expected. The Babson "continuous working plan for your money" is explained in detail. Emphasis is placed as usual upon the basic law of action and reaction, the importance of the church and religion as the bulwark of investment values (p. 183), and the belief that he who contributes the greatest service will reap the greatest profits.

Charles S. Tippetts

BATTELLE, D. D. *Uniform cost accounting in the retail lumber business.* Official pubs., vol. xii, no. 5. (New York: National Assoc. of Cost Accountants. 1930. Pp. 388-398. 75c.)

BERLE, A. A. *Cases and materials in the law of corporation finance.* (St. Paul: West Pub. Co. Pp. 950, approx. $6.50.)

BLUMSTEIN, P. *Trusts de placement en Angleterre.* (Riga: Valters & Rapa. 1930. Pp. 187.)

BOWIE, J. A. *Education for business management: the case for the further development of educational facilities.* (New York and London: Oxford. 1930. Pp. 208. $1.50.)

BURTON, J. H. *Investigations: accountancy and financial.* (New York: Pitman. 1930. Pp. 172. $1.50.)

CASTENHOLZ, W. B. *The analysis and control of distribution costs.* Official pubs., vol. xii, no. 4. (New York: National Assoc. of Cost Accountants. 1930. Pp. 277-288. 75c.)

CASTENHOLZ, W. B. *The control of distribution costs and sales.* (New York and London: Harper. 1930. Pp. viii, 194. $3.50.)

One of the significant trends in business is the increasing attention given to distribution problems. Executives everywhere are scrutinizing their sales organizations with a view to eliminating inefficiencies and devising new and cheaper methods of distribution. It is natural that in their approach to this problem they should seek aid in the form of accounting analysis and control. Mr. Castenholz's book is a pioneering attempt to apply this type of analysis to sales activities, and as such will be read with interest by business men, accountants, and economists.

The book contains eleven chapters of which the first four develop the importance of the cost approach, the fundamental nature of the production and distribution functions, and the need for market analysis and sound selling plans. The other seven discuss the problems of analysis of distribution costs and the application of budgetary control to these activities. Illustrative figures and analyses are used throughout to clarify the exposition.

It is to be expected that early attacks upon new problems will arouse disagreements and this book is no exception. There will be some further disappointment that the author failed to carry his analysis into other methods of selling than by means of salesmen, and to develop his methods so as to show more effectively managerial responsibility. However, any book which advances our understanding of the difficult problem of analysis of distribution costs is a contribution.

W. P. FISKE

CHURCH, A. H. *Overhead expense in relation to costs, sales and profits.* (New York: McGraw-Hill. 1930. Pp. viii, 418. $5.)

The tendency in industry is steadily in the direction of the substitution of overhead for labor. It is therefore of value to receive from time to time new statements of the theory of overhead, particularly from an authority so generally recognized as Mr. Church. This book contains an extended discussion of the nature of overhead, the necessity for departmental distribution, and the development of process rates for the charging of overhead to the product. The importance of setting up accounts with the object of current control of expense is emphasized. In particular the

chapter entitled "Variables controlling cost reduction" is a stimulating discussion of the approach to the problem of reduction of expenses.

The book continues Mr. Church's support of the supplementary rate. There is nowhere a complete discussion of the time divisor to be used in determining the process rate. In spots the discussion seems to be unduly drawn out. The book as a whole, however, is a valuable contribution to accounting and economic literature.

W. P. Fiske

Cordell, H. W. *Instalment credit in the retail furniture trade.* Ohio State Univ. studies no. 14. (Columbus: Ohio State Univ. Press. 1930. Pp. 154. 50c.)

A first-hand investigation. According to the author, "the percentage of total sales made on the instalment plan in furniture stores was, on the whole, quite high, 69 per cent being the average for 90 stores that reported the distribution of their sales as between instalment and other kinds of sales. Only 16 per cent of the 90 stores reported instalment sales of less than 50 per cent of total sales; on the other hand, 54 per cent made 75 per cent or more of their sales on the instalment plan. An average of the figures given by 7 department stores shows instalment sales to have been 7.6 per cent of total sales. Obviously, the percentages were far higher in divisions in which goods were sold on the instalment plan. The instalment sales of furniture in 8 department stores averaged 65 per cent of total furniture sales."

Davidson, C. *Voluntary chain stores and how to run them.* (New York and London: Harper. 1930. Pp. viii, 353. $5.)

Assembles material gathered from the experience of wholesale grocers who are operating voluntary chains, of retailers, and of manufacturers in the food industry. It deals with plans of organization, layouts and stock arrangement, signs, physical equipment, advertising, delivery, store locations, and private brands.

Dodd, D. L. *Stock watering: the judicial valuation of property for stock-issue purposes.* (New York: Columbia Univ. Press. Pp. 340. $4.75.)

Eldridge, F. R. *Advertising and selling abroad.* (New York: Harper. 1930. Pp. viii, 202. $3.50.)

Elliott, M. and Manson, G. E. *Earnings of women in business and the professions.* Michigan business stud., vol. iii, no. 1. (Ann Arbor: Univ. of Michigan. 1930. Pp. 215.)

Emmet, B. *Department stores: recent policies, costs and profits.* (Stanford Univ., Calif.: Stanford Univ. Press. 1930. Pp. xxiii, 214. $4.)

Filene, E. A. *The model stock plan.* (New York: McGraw-Hill. 1930. Pp. xiv, 253. $2.50.)

Fisher, E. M. *Advanced principles of real estate practice.* (New York: Macmillan. 1930. Pp. vii, 522. $3.50.)

The author was formerly with the Institute for Research in Land Economics at the University of Wisconsin, later educational director for the National Association of Real Estate Boards, going from the latter position to the professorship of real estate at the University of Michigan, and in interims engaging in a considerable amount of practical real estate activity. He combines, therefore, an academic background with a foreground of practical experience. It is refreshing, for instance, to find

a writer on real estate warning his readers at the outset that "the general principles governing successful real estate activities are for the most part unknown" (p.v.); conceding that the average real estate dealer finds it difficult "to drop the rôle of tradesman and wear with ease the costume of the profession" (p. 12); and that "the factor which tends most to distort the real estate market . . . is probably the influence of salesmanship" (p. 144). Such detachment of viewpoint and broad perspective upon his own specialized field, we take it, reflect the author's academic background. His practical experience is reflected in the wealth of illustration and the realistic analysis and discussion of the processes of the real estate market, real estate advertising, selling, subdivision, and land planning.

In a general work covering such a broad field as real estate, organization of material and clarity of treatment are the essential qualities, and Professor Fisher's *Advanced Principles* has both of these characteristics. His chief contributions toward a further extension of the subject are in his discussion of the factors affecting urban land uses, in Chapter 7, and the elements that influence the real estate market, in Chapter 8.

One of the penalties of a comprehensive treatment of a whole field, however, is the necessity of treating some topics with a brevity and generality that at times become almost misleading. It would seem to the reviewer that this is somewhat the case with the chapter on "Real estate taxes and assessments." When the question of the incidence of taxes on improvements has to be dismissed with a paragraph to the effect that such taxes "are usually shifted to the tenants of the property," it would seem better to have omitted the topic. But even in this chapter it is interesting to find a real estate specialist conceding that the single tax "undoubtedly has merit, particularly when applicable to future increases in value" (p. 338).

Such unconventional slips from professional etiquette add real interest to the work, coming from one with both university training and business experience. And in spite of both handicaps the author has retained a simplicity and clarity of style that gives his work an unusual quality of readableness.

Herbert D. Simpson

Fowler, J. F., Jr. *Introduction to Wall Street: a practical guide book for the investor or speculator.* (New York and London: Harper. 1930. Pp. xiii, 265. $3.50.)

This volume, written in a simple, direct style, can be recommended as a clear, elementary exposition of the machinery and functions of what is generally termed "Wall Street." In spite of the fact that numerous books in this general field have appeared during the past year, there was still a need for such a work as the author has now made available. After a brief description of the different kinds of stocks and bonds, attention is directed to the structure and operation of the New York Stock Exchange, the technique of buying and selling securities, and the principles of investment. There are good chapters on the methods used by speculators, the money market, and trading on the commodity exchanges.

Charles S. Tippetts

Fraser, C. E. *Problems in finance.* 2nd rev. ed. (New York and London: McGraw-Hill. 1930. Pp. xxv, 801. $5.)

A revision of the book first published in 1927. Contains nearly 100 new problems. All the cases are taken from actual business experience.

FREDERICK, J. G., editor. *A philosophy of production: a symposium.* (New York: Business Bourse. Pp. v, 259. $4.)

If any person tackles this book in the hope that he will obtain a unified and consistent treatment of the problems of present-day production, he will be disappointed. This is a mélange of a dozen different views and opinions submitted by as many different authors generalizing about the aims of production and the means of securing the best results under the existing form of economic organization. Needless to say, the quality and quantity of productive "philosophy" varies enormously from author to author. This book has most of the merits and defects of any symposium. Each contributor is well known in his own line, and several have achieved world-wide fame; hence their words command careful attention if not agreement. Among the contributors there is little disagreement and even less agreement because each is riding his own hobby without regard to other economic hobbies. When minds do not meet there can be neither conflict nor accord.

Henry Ford and Bernard M. Baruch, however, do collide head on over the question of the way to achieve prosperity. Mr. Ford vigorously advocates the notions which made his millions and his fame, namely, make ever increasing quantities of the best possible goods at the lowest attainable costs, sell them at the lowest prices, and raise wages continuously. His "immediate cure for depression . . . is quantities of goods pushed out into the world." Naturally, he is vehemently opposed to any interference with private competitive business leadership, for he has beaten his competitors through superior competitive ability.

Mr. Baruch thinks the fostering hand of government has created "our vast over-capacitated industrial combinations" which periodically produce more than can be consumed. Contrary to Mr. Ford, he would unite all industries as they were united under the War Industries Board for the purpose of limiting production to the consuming capacity of people. He condemns the interfering hand of government which has pushed us to the verge or ruin, and he calls upon the hand of industry, abetted by "constructive non-political sanction of government," to snatch us back from this verge. Mr. Baruch's "philosophy" seems rather inconsistent, but at least he sees the causes and possible remedies for our economic ills much more clearly than Mr. Ford.

Space will not permit even outlining the interesting views of Owen D. Young, Sir Philip Gibbs, Walter S. Gifford, Henry P. Kendall, and the other contributors.

In Book II the editor gives his own views at some length. He champions "the philosophy of creative waste and free spending." He seems to hold with Mr. Ford that the chief end and aim of man is to spend and to spend more abundantly.

ROYAL MEEKER

GREELEY, H. D. *Estate accounting.* (New York: Ronald. 1930. Pp. iii, 114.)

HOWARD, T. W. *The value to industry of association work in cost accounting.* Official pubs., vol. xii, no. 5. (New York: National Assoc. of Cost Accountants. 1930. Pp. 381-388. 75c.)

HULL, R. S. *Casualty insurance accounting.* (New York: Ronald. 1930. Pp. xii, 325. $10.)

A contribution to specialized accounting. The author was aided by an advisory committee of the Casualty Actuarial Society.

KELLY, F. C. *Why you win or lose: the psychology of speculation.* (Boston: Houghton Mifflin. 1930. Pp. xiv, 177. $2.)

The author gives a highly interesting description of his personal experiences in playing the stock market. His success, he claims, has been due to the fact that he has refused to follow the great mass of stock market speculators, for a large majority of those who buy and sell stocks are always wrong. Every time he followed a "tip" or acted on "inside information" or did what seemed to be logical or wise, Mr. Kelly lost. In other words, the way to win is to be contrary, for nearly everything you see or hear proves to be incorrect. The greatest enemies of stock market success are vanity, greed, and the wish to believe those rumors which will make money for the speculator. Pools get the blame for what is really the greediness of the public. When the broker calls for more margin, advises Mr. Kelly, do not give it to him. Let him sell enough shares to make up the difference.

CHARLES S. TIPPETTS

KESTER, R. B. *Accounting theory and practice.* Vol. I. 3rd ed. (New York: Ronald. 1930. Pp. xx, 835. $4.)

This is a second revision of Professor Kester's well-known work originally published in 1917. Two chapters, "The manufacturing corporation" and "The voucher system," have been moved forward from Volume II. The order of chapters has been rearranged and the treatment is more extended, over two hundred pages being added to the book. There is an increased emphasis upon the analytical aspects of the subject and a decreased emphasis upon mechanics and technique.

W. P. F.

KNAPP, C. H. *Allocation of selling and administrative costs to the article of sale.* Official pubs., vol. xii, no. 4. (New York: National Assoc. of Cost Accountants. 1930. Pp. 289-304. 75c.)

LITCHFIELD, A. C. and SPINING, C. M. *Cost accounting in tire production.* Official pubs., vol. xii, no. 9. (New York: National Assoc. of Cost Accountants. 1931. Pp. 747-759. 75c.)

LOUCKS, W. N. *The Philadelphia plan of home financing: a study of the second mortgage lending of Philadelphia building and loan associations.* (Philadelphia: Univ. of Pennsylvania Press. 1929. Pp. iii, 67.)

Financing the purchase of homes through second mortgage lending has been practised extensively for a long period of years by Philadelphia building and loan associations. Elsewhere in the United States, with the exception of Baltimore where the plan has been "used to a slight extent," it is "scarcely known and almost entirely unused" (p. 2). In order that other cities may benefit from the experience of Philadelphia, an impartial investigation of the operation of the "Philadelphia plan" is necessary. Mr. Loucks' survey and evaluation of the plan fulfil this very need.

Mr. Loucks begins his study with a brief exposition of the Philadelphia

plan. A Philadelphia home purchaser, under this plan, may make a "down payment which is usually not in excess of 20 per cent of the purchase price" of the property; borrow "an additional 50 per cent of the purchase price from a bank, insurance company, or private lender on the security of a first mortgage; and borrow "the remaining 30 per cent" of the purchase price on the security of a second mortgage from a building and loan association (p. 1). At the present time building and loan financing in other cities is limited to first mortgage loans, or to second mortgage loans "only when the first also is held." The distinguishing feature of the Philadelphia plan is precisely this: a Philadelphia association will loan on the security of a second mortgage "after some other financing agency has granted a first mortgage loan." The borrower agrees to repay the loan "in monthly installments which will extend over a period of about 11 to 11 ½ years" (p. 1).

In his appraisal of the plan, Mr. Loucks applies two major tests: First, he compares the cost of second mortgage loans in Philadelphia with the cost of similar loans elsewhere; and secondly, he computes a foreclosure and loss percentage to ascertain the degree of risk of loans secured by second mortgages under this plan. In both respects he concludes after careful investigation that the operation of the Philadelphia plan has been "highly satisfactory." ". . . . the cost of money borrowed under this plan varies from 9.4 per cent to 12.8 per cent . . . . (the *usual* cost) tending to be nearer the former than the latter" (p. 23). Relatively to conditions in other cities, he states that "the maximum cost experienced by any important group of borrowers in Philadelphia is the minimum cost experienced by any important group of borrowers elsewhere" (p. 30). In regard to the risk of second mortgage loans, he finds that, during a period of approximately 14 years, "the $13,336 loss experienced by these associations, when expressed as a percentage of their present aggregate assets, becomes 88/10,000 of 1 per cent (p. 35). Such small losses on foreclosures prompts him to suggest that "second mortgage loans in Philadelphia may be so safe that even the low costs which have been found to prevail are unreasonably high when compared with the actual risk in the investment" (p. 30). He qualifies the above conclusions, however, with the frank acknowledgment that these tests were applied under favorable market conditions, since real estate values in Philadelphia were rising during the period of years embraced by his study. Under less auspicious circumstances the operation of the plan, he carefully points out, might not have been equally successful.

Mr. Loucks is quite aware of the limitations to which any statistical study such as his own is subjected. The most serious was the inability to get certain important information "which, had it been obtainable, would possibly have either changed or strengthened the conclusions" (p. 3). Furthermore, the data upon which the investigation is based include only "23 per cent of the total building and loan assets of Philadelphia" (p. 3) or 228 building and loan associations out of a total number of 3,428 (p. 2). The validity of his results, therefore, depends upon the completeness of his information and the adequacy of his sample group of building and loan associations. But whatever modifications, if any, may be made of his conclusions must wait upon a broader basis of fact.

R. H. Lounsbury

LUCAS, D. B. and BENSON, C. E. *Psychology for advertisers.* (New York and London: Harper. 1930. Pp. xv, 351. $3.50.)

MEAD, E. S. *Corporation finance.* 6th rev. ed. (New York and London: Appleton. 1930. Pp. 728. $3.50.)

NASH, A. *The golden rule in business.* Enl. and cor. ed. (New York and Chicago: Fleming H. Revell. 1930. Pp. 188.)

OSTLUND, H. J. *Cost analysis for wholesale operations with special reference to wholesale druggists.* Official pubs., vol. xii, no. 7. (New York: National Assoc. of Cost Accountants. 1930. Pp. 569-605. 75c.)

PARKE, W. I. *Planning and installing systems.* Official pubs., vol. xii, no. 8. (New York: National Assoc. of Cost Accountants. 1930. Pp. 665-680. 75c.)

PARRY, C. L. *Insurance trade press advertising.* (Columbus: Ohio State Univ. Press. 1930. Pp. vii, 54. 50c.)

PRICKETT, A. L. and MIKESELL, R. M. *Introduction to accounting.* (New York: Macmillan. 1930. Pp. xvii, 374. $1.75.)

This text has been designed for a one-year course in the fundamentals of accounting. Only so much of the routine and technical procedure has been introduced as is necessary and desirable for analysis and interpretation of the underlying principles.

The first chapter gives an interesting though necessarily brief history of the development of accounting, pointing out its usefulness and importance to civilization from the times of the ancient Egyptians and Babylonians to the twentieth century.

Approaching accounting by way of the balance sheet and profit and loss statement in chapters 2, 3, and 4, the authors proceed directly in the succeeding chapters to the analysis of business transactions and the records made of them in the appropriate books. Each chapter is followed by a series of questions and short problems. At strategic points relatively long problems have been introduced to correlate and integrate the principles previously introduced. With a few exceptions, notably the substitution of gross margin for gross profit (p. 33), the terminology is that now in general use.

The chapters on partnerships and corporations contain a wealth of descriptive material concerning the many varieties of such organizations and their legal setting. Many will feel, however, that too little attention has been devoted to the analysis of some of the problems. For example, reserves and appropriated surplus are not discussed at all, and though the distinction between capital surplus and earned surplus is made, its importance is left largely to inference.

WILLARD C. BEATTY

RADIN, M. *The lawful pursuit of gain.* (Boston and New York: Houghton Mifflin. 1931. Pp. 144. $1.25.)

RAUTENSTRAUCH, W. *The successful control of profits.* (New York: Forbes Pub. Co. 1930. Pp. xvi, 239. $3.)

The thesis of this work is the development of methods and technique for the analysis of the business enterprise along economic lines. The importance of a factual basis for control is repeatedly emphasized. The relationship of costs and volume of production to profits is developed through the idea of break-even chart.

W. P. F.

REES, R. I. *Personnel management.* (New York: Alexander Hamilton Inst. 1930. Pp. xxiii, 351.)

RICHARDS, W. E. *Patents, trade-marks and copyrights, law and practice.* Edited by O. A. GEIER. 5th ed. (New York: Richards & Geier. 1930.)

ROBINSON, G. *The administration of standards and their flow through the various accounts.* Official pubs., vol. xii, no. 6. (New York: National Assoc. of Cost Accountants. 1930. Pp. 485-499. 75c.)

ROREM, C. R. *Capital investment in hospitals: the place of "fixed charges" in hospital financing and costs.* Pub. no. 7. (Washington: Committee on Costs of Medical Care, 910 17th St., N. W. 1930. Pp. 44.)

ROSE, T. G. *Business charts: a clear explanation of the various types of charts used in business, and of the principles governing the correct presentation of facts by graphical methods.* (London and New York: Pitman. 1930. Pp. 94. 10s. 6d.)

SCHACTER, H. W. *Profitable department store management.* (New York and London: Harper. 1930. Pp. xii, 207. $4.)

A business-man's book by a general manager of department stores. Deals with budgets, classification of departments, reports, mark-downs, advertising schedules and other factors which affect profits. The chapter on "Waste in advertising" is of special interest in connection with the problem of expenses in marketing.

SCHNACKEL, H. G. *The art of business reasoning.* (New York: Wiley. 1930. Pp. 320. $3.50.)

SCHWENNING, G. T., editor. *Management problems with special reference to the textile industry.* (Chapel Hill: Univ. of North Carolina Press. 1930. Pp. xiv, 264. $2.)

Contains addresses delivered at the University of North Carolina, 1929-30. Three of the addresses deal with textile problems; two, with personnel problems; four, with selected problems.

SEKESON, L., compiler. *Distribution of property of decedents in the state of New York, with table of federal and New York estate tax rates.* 5th rev. ed. (New York: Am. Surety Co. of N.Y. 1930. Pp. 46.)

STEPHENSON, G. T. *English executor and trustee business through the eyes of an American trust man.* (New York and London: Harper. 1930. Pp. xiv, 262. $4.)

STURGES, W. A. *A treatise on commercial arbitrations and awards.* (Kansas City: Vernon Law Book Co. 1930. Pp. x, 1082.)

THOMASON, C. C. *Economic problems and cases, revised.* (Rochester: Rochester Athenaeum & Mechanics Inst. $1.75.)

WHITNEY, R. *Speculation.* Address before the Illinois Chamber of Commerce at Chicago, October 10, 1930. (New York: N.Y. Stock Exchange. 1930. Pp. 22.)

Certified public accountant laws of the United States. (New York: Century. Pp. 255. $3.)

Consumer analysis of the Greater Milwaukee market. (Milwaukee: Journal Co. 1930. Pp. 76.)

The financial plan of department stores. Bull. no. 32. (Urbana: Univ. of Illinois Bureau of Business Research. 1930. Pp. 37. 50c.)

Financial statements in annual reports to stockholders of industrial and mercantile companies. (New York: Metropolitan Life Insur. Co. Policyholders Service Bureau. 1930. Pp. 72.)

Rational organization and industrial relations: a symposium of views from management, labour and the social sciences. (The Hague: International Industrial Relations Assoc., Javastraat 66. 1930. Pp. 279. H.Fl. 3.50.)

From the wordy papers contributed to the 1929 meeting of the I.R.I. the reader will gather that liberal, professional, managerial thought is enlarging its concept of scientific management to include rational and socially useful organization, not only of factories, but of industries and of national economic life. The main emphasis, however, is still on techniques and procedures for accomplishing matters of lesser scope. Some of the French and Germans are able to infuse a certain lively spirit into generalities which, in the Anglo-Saxon papers, sound barren and unconvincing, but these contributions the reader is likely to miss unless he can tackle those languages. An English translation fails to recapture M. Dubreuil's illuminating plea for rediscovering an "inner urge" to production, and Hans Mars' striking and frank discussion of non-coöperative attitudes in industry—far and away the best paper in the collection—has not been translated. Here at last one comes to grips with fundamental realities which most industrial relations experts are too hopeful, or too diplomatic, to attack: technological unemployment, restrictive commercial policies, conflicts between public and private interests are examined for their present and actual bearing upon industrial relations, and specifically, upon the willingness of workers to coöperate in rationalization. In contrast with many pages of wishful thinking, this section stands out for its keen and realistic analysis.

JEAN ATHERTON FLEXNER

Capital and Capitalistic Organization

NEW BOOKS

BAUER, J. *Standards for modern public utility franchises.* Pub. no. 17. (New York: Municipal Admin. Service, 261 Broadway. 1930. Pp. 36.)

DORAU, H. B. *Materials for the study of public utility economics.* (New York: Macmillan. 1930. Pp. xxvii, 975. $5.)

This collection of readings or materials covers practically every economic or business aspect of the regulation and operation of public utilities. It presupposes on the part of the reader a knowledge of the elementary principles of economics and accounting as well as some familiarity with terms descriptive of the utility industries. Although it is one of the social science textbook series edited by Professor Ely, the book is adapted as much to the needs of the general reader and public utility officials as to the use of the college student. The materials are drawn from a great variety of sources, including articles in leading law and economic journals, government reports, articles in engineering and utility magazines and publications of utility companies and associations. The preface states that in the selection of these materials the objective has been to present the varying and often contradictory arguments and opinions of different individuals and interests. But, of course, even the compiler of a volume of readings exercises the power of choice. In general, the arguments and opinions given represent variations within the middle ground on most controverted matters rather than extreme points of view. The contents of the book are

about equally divided between problems of management and problems of public control.

At first four chapters, or about one-fourth of the book, discuss the historical development of the utility industries, their economic characteristics and their legal and business organization. This is chiefly descriptive material. The opening sections on the historical development are necessarily fragmentary; and one may question whether a more concise presentation might not have come from the pen of a single writer. There appears to be little point in having admitted historical data presented by different writers. Another difficulty which is probably unavoidable in a book on the "economics of an industry," is the fact that readers who already have a fair understanding of corporation finance, taxation, and labor problems will find some of the selections in chapters that treat of public utility problems in these fields somewhat lacking in freshness, while those who have no knowledge of them will sometimes fail to follow the discussions. At first sight the final chapter on the ownership of public utility enterprises may appear to some readers inadequate, because, saving one short article by D. F. Wilcox, it is largely descriptive. But the reviewer agrees with the suggestion of Dr. Dorau that much of what has been written on this subject is prejudiced and not especially enlightening.

The subject of public regulation, although considered especially in the chapters on the legal status of utilities, on the development of regulatory measures and on the valuation of property and plant, appears in other sections on capitalization, rate of return and the like. The materials on legal aspects of the subject are magazine articles; and the selection is excellent. But, since the law is involved, one questions whether one or two opinions of the United States Supreme Court should not have found a place.

But these are, after all, criticisms of relatively minor matters. The selections are on the whole exceedingly well chosen and the interpretative notes and sections provided by the author are high in value. Finally, the general tone of the selections, which gives the reader the impression that a conscious attempt is being made to present facts and analyses rather than "a case" for or against the utilities, is one that should appeal to all serious students of public utility economics.

F. B. G.

Groninger, T. E. *Public utility rate-making and court review of rate orders.* (Rochester: Lawyers Coöp. Pub. Co. 1930. $7.50.)

Keezer, D. M. and May, S. *The public control of business: a study of anti-trust law enforcement, public regulation and government participation in business.* (New York: Harper. 1930. Pp. xi, 267. $2.25.)

The authors believe that government supervision of business will present a pivotal issue during the next decade, and therefore they attempt to cover in one volume the three major methods for effecting such control—anti-trust law enforcement, commission regulation of concerns affected with a public interest and government participation in business. The book is not meant to represent a substitute for the specialized studies in the field like those of Jones, Watkins, Seager and Gulick, Glaeser, Bauer, Clark, and the publications of the National Industrial Conference Board, but to demonstrate the common aims of all public policy toward business

One is reminded of ***Britain's Industrial Future,*** the report of the Liberal Industrial Inquiry that attacked the same problem and did so in the same spirit. Keezer and May are liberals in the modern meaning of the word, liberals as the English liberal manifesto of 1928 coined them in phrases that may well be called classical in the future. "Liberalism stands for liberty, but it is an error to think that a policy of liberty must be always negative, that the state can help only by abstaining from action, that invariably men are freest when their government does least."

In this spirit Keezer and May demand a drastic overhauling of the system of government control of business in this country and make a strong case for the regular use of public interest regulation and public participation in business as forms of control to supplement anti-trust action. The authors believe that a central agency would be needed to correlate the anti-trust laws, public regulation and government ownership and operation as parts of a flexible scheme, to prevent the continual danger of working at cross purposes. As examples for the lack of such correlation in the past, the authors quote the attempts of restoring competition in the meat packing industry and the duplication of efforts in working independently on the same problem, such as that of the Federal Trade Commission and Department of Justice in dealing with resale price maintenance.

ROBERT M. WEIDENHAMMER

NADLER, M. *Corporate consolidations and reorganizations.* (New York: Alexander Hamilton Inst. 1930. Pp. xviii, 350.)

PARKER, J. S. and SMITH, J. B. R., editors. *The corporation manual: statutory provisions relating to the organization, regulation and taxation of domestic business corporations, and to the admission, regulation and taxation of foreign business corporations, in the several states, territories and districts of the United States.* 31st ed. (New York: U. S. Corp. Co. 1930. Pp. xv, 2624.)

ZEUTHEN, F. *Problems of monopoly and economic welfare.* (London: Routledge. Pp. 152. 7s. 6d.)

Electrical Estimators' Association: investigation into an alleged combine of electrical contractors in the city of Toronto. Report of commissioner, October 4, 1930. (Ottawa: H. M. Stationery Office. 1930. Pp. 12.)

Labor and Labor Organizations

NEW BOOKS

ADAMS, W. W. *Quarry accidents in the United States during the calendar year 1928.* Bull. 325. (Washington: Supt. Docs. 1930. Pp. v, 103. 20c.)

BERGLUND, A., STARINES, G. T. and DE VYVER, F. T. *Labor in the industrial South.* (University, Va.: Institute for Research in the Social Sciences. 1930. Pp. xiii, 176.)

This book is devoted to a study of certain aspects of the furniture, lumber, and cotton manufacturing industries in the South. It is one in the important series of monographs of the Institute for Research in the Social Sciences at the University of Virginia. The economic life of the

South, particularly the transition from agriculture to industry, is a rich mine in which to dig, and the results are of interest to the widest circle of scholars and business men. The chief contribution of the present study is in the tables and charts showing wage differences and wage trends in the Northern and Southern cotton factories. For twelve selected cotton mill occupations the average full-time weekly wage in the South in 1928 was $5.70 less than in the North; the average actual wage was $6.71 less in the South. It is noted that while New England operatives are supposed to work fewer hours than Southern operatives, in 1928 the former actually worked longer hours than the latter. This study gives too little attention to differences in skill in the same classifications of workers North and South, a point which is properly stressed in the recent volume of Professor C. T. Murchison, *King Cotton Is Sick*. Helpful additions are made, however, to our knowledge of the comparative prices of food in Northern and Southern communities; small difference was found, except that meats cost more in the North. The chapter on welfare work is general, but makes a useful distinction between the extra-manufacturing expenditures of plants in cities, in suburbs, and in the country.

BROADUS MITCHELL

BERMAN, E. *Labor and the Sherman act.* (New York and London: Harper. 1930. Pp. xviii, 332. $3.)

BEVERIDGE, W. H. *Unemployment: a problem of industry (1909 and 1930).* New ed. (New York: Longmans. 1930. Pp. 541. $7.50.)

DUNN, R. W. and HARDY, J. *Labor and textiles.* (New York: International Pubs. 1931. Pp. 256. $2.)

EDGERTON, J. E. *A labor policy for the South.* Address before the Institute of Public Affairs of the University of Virginia at Charlottesville, August 5, 1930. Reprinted from August issue of *American Industries.* (New York: National Assoc. of Manufacturers, 11 W. 42nd St. 1930. Pp. 12.)

HABER, W. *Industrial relations in the building industry.* (Cambridge: Harvard Univ. Press. 1930. Pp. xviii, 593. $5.)

HOBSON, J. A. *Rationalisation and unemployment: an economic dilemma.* (New York: Macmillan. 1930. Pp. 126. $1.75.)

ILLYEFALVI, L. I. *Die sozialen und wirtschaftlichen Verhältnisse der Arbeiter in Budapest.* (Budapest: Kommunal-Statistisches Amt. 1930. Pp. 38*, 1143.)

In Hungarian and German.

MUSSEY, H. R. *Unemployment: a practical program.* (New York: League for Independent Political Action, 52 Vanderbilt Ave. 1930. Pp. 12.)

REED, L. S. *The labor philosophy of Samuel Gompers.* (New York: Columbia Univ. Press. 1930. Pp. 190. $3.)

A broad familiarity with the labor movement, an accurate knowledge of the history of the American Federation of Labor, and an exhaustive study of the writings, utterances, and activities of Mr. Gompers have been combined to produce this book. The subject has been broken down into eight main divisions covering all of its most important aspects, and the significant pronouncements of the Federation's long-time leader then brought together to create both a logical and chronological exposition of Mr. Gompers' emotions, thoughts, and actions.

It is doubtful if so human and inconsistent a body of doctrines as those Dr. Reed describes should be characterized by so broad a term as "philosophy," for few inclusive and enduring policies that were continuously and progressively applied can be found. It is impossible to classify Mr. Gompers in any school of thought and keep him there. At times he was led by positive enthusiasms; again by antagonism or hatred; at another period by the necessity of following the crowd; frequently by personal ambition. His conclusions and policies varied with the motives by which he was guided. Only with the shibboleths of "voluntarism" and "more now" did he perpetually drive ahead.

Early in life Gompers was a professed and active socialist, but on being convinced that such a movement was inopportune he became indifferent. Later, the inside attacks of the socialists upon his cherished plans provoked an active hostility that finally grew into an obsession of hatred. The book discusses similar developments or changes in many other aspects of his work, such as politics, the state, industrial unionism, international labor relations. In all of them we find dogmatism, vacillation, irrationality, as well as, occasionally, clear thinking and industrial statesmanship. The things close at hand were all-dominant; they sufficed for great accomplishment in the early days, but they brought a stop to progress in the final years.

The author has not written a labor history nor a biography, but he has given us a large amount of organized material that affords much help in explaining what has been happening in the American labor movement during the past forty years—and why so little is happening now.

Earl D. Strong

Rochester, A. *Labor and coal.* (New York: International Pubs. 1931. Pp. 255. $2.)

Stewart, B. M., and others. *Unemployment benefits in the United States: the plans and their setting.* (New York: Industrial Relations Counselors. 1930. Pp. xviii, 727.)

Todes, C. *Labor and lumber.* (New York: International Pubs. 1931. Pp. 208. $2.)

Wilmot, J. *Mr. Snowden at the exchequer: labour principles in practice.* (London: The Labour Party. 1930. Pp. 15. 1d.)

Wolfers, A. *Amerikanische und deutsche Lohne: eine Untersuchung über die Ursachen des hohen Lohnstandes in den Vereinigten Staaten.* (Berlin: Julius Springer. 1930. Pp. iv, 139.)

The age of admission of children to employment in non-industrial occupations. 15th session, 1st discussion. (Geneva: Internat. Labour Office. 1931. Pp. 130.)

Company plans for the regularization of plant operation and employment. (Princeton: Princeton Univ. Industrial Relations Section. 1930. Pp. 16.)

Mimeographed sheets summarizing plans of Proctor and Gamble Co., Dennison Manufacturing Co., General Electric Co., Delaware and Hudson Co., Walworth Co., and Southern Pacific Co.

Employee rating scales. (Princeton: Princeton Univ. Industrial Relations Section. 1930. Pp. 11, mimeographed.)

Describes different plans in current use.

Employee stock purchase plans and the stock market crisis of 1929. A supplement to employee stock purchase plans in the United States, published in January, 1928. (New York: National Industrial Conference Board. 1930. Pp. 37.)

The present study "gives much reassurance that the movement toward employee stock ownership has suffered practically no impairment" because of the great fall in stock prices in the latter part of 1929. Several hundred employees were interviewed in order to obtain first-hand data in regard to the employees' reaction.

The employment of children and young persons in Canada. (Ottawa: H. M. Stationery Office. 1930. Pp. 139.)

Hours of work in coal mines. 15th session, item ii on the agenda. (Geneva: Internat. Labour Office. 1930. Pp. 91.)

Involuntary unemployment. Report of the Committee on the General Problem of Unemployment. (Indianapolis: Indianapolis Employment Bureau. 1930. Pp. 14.)

Labour government's education policy: full speed ahead. (London: The Labour Party. 1930. Pp. 15. 1d.)

The Labour Party: report of the thirtieth annual conference, Llandudno, 1930. (London: The Labour Party. 1930. Pp. 331. 1s. 5d.)

Middle-aged and older workers in California. Spec. bull. no. 2. (San Francisco: California Dept. of Industrial Relations. 1930. Pp. 98.)

Organization to promote employment in the state of Ohio, 1929 and 1930. (Washington: Supt. Docs. 1930. Pp. 47. 10c.)

Selected book list for the office library of an industrial relations executive. (Princeton: Princeton Univ. Industrial Relations Section. 1930. Pp. 24.)

Vacations for industrial workers. (New York: Metropolitan Life Insur. Co., Policyholders Service Bureau. 1930. Pp. 16.)

What's wrong with domestic service? We want to know what you think. (London: The Labour Party. Pp. 8.)

Money, Prices, Credit, and Banking

A Treatise on Money. By JOHN MAYNARD KEYNES. Vol. I. *The Pure Theory of Money.* Vol. II. *The Applied Theory of Money.* (New York: Harcourt Brace. 1930. Pp. xvii, 363; viii, 424. $8.00.)

It is almost superfluous to comment on the outstanding importance of a treatise on monetary problems from the pen of Professor Keynes. In the reviewer's judgment, the serious work of the next generation on business cycles, central banking, and international finance will be more profoundly modified as the result of this than of any other book which has been published since the war. It is a masterly analysis, comprehensive, penetrating, and extraordinarily free from minor errors. In a field which has been perhaps more intensively cultivated during recent years than any other branch of economics, Keynes says much that is new, much more that is new to those who do not read German, still more to those who do not read either German or D. H. Robertson.

The scope of the book is narrower than the title would indicate. It is not a complete treatise on money—for instance, it does not discuss legal tender, the silver standard, the technique of currency stabilization, inflation as a method of taxation. The central theme is the effect of changes in the quantity of money (consisting primarily of bank deposits) on profits, productive activity, the distribution of income, and the creation of capital. Since, however, these are precisely the aspects of monetary science in which the western world is just now most interested, it would be ungracious to complain of the omissions.

The theoretical portion of the work may be summarized, inadequately, as follows: First (after an illuminating discussion of the problem of the measurement of the purchasing power of money) there are developed a series of "fundamental equations" of the purchasing power of money (Book III). These equations involve a much larger number of variables than do the equations of exchange made familiar by Fisher and by Pigou, including the efficiency of industry, the rate of formation of new capital, the volume of savings, the price levels of consumption goods and of production goods, the volume of foreign lending, and the balance of external trade.

The discussion in Book III is highly condensed, yet it covers over 100 pages. It is impossible in a brief review to recapitulate it fully enough to enable the reader to decide whether he finds it convincing. All that a reviewer can do is to suggest that any reader who is seriously interested in the range of problems indicated will find it worth his while to work through the formidable-looking (but not difficult) mass of equations. My own conclusion (reached in spite of preëxisting distrust of the monetary approach to cycle analysis) is that Keynes' analysis is not merely mathematically sound but economically significant; that the equations do constitute a realistic description of characteristic current economic behavior.

Perhaps the most important equation, for purposes of the later analysis, is the "second fundamental equation," which states that the price level of output as a whole is determined by the ratio of income disbursed to the factors of production to the volume of output, plus the ratio of the excess or deficiency of savings as compared with the selling price of investment goods, to output as a whole $\left(\pi = \frac{E}{O} + \frac{I - S}{O}\right)$. Short-time fluctuations in the general price level are due chiefly to changes in the second term of the equation which represents the net total of inflation or deflation, and also measures the net total of business profit or loss.

In analyzing the causes of discrepancies between the rate of saving and the rate of formation of capital, Keynes follows closely in the foot-

steps of Wicksell, whose work he brings almost for the first time to the attention of readers of English. Discrepancies between savings and "investment" (capital formation) are attributed to discrepancies between the "natural-rate" and the market rate of interest. The natural-rate is the equilibrium rate which stimulates an amount of "investment" sufficient to absorb the current amount of savings. By offering credit at a rate below the natural-rate, banks induce entrepreneurs to use more funds than the saving public is withholding from consumptive uses; by charging a rate higher than the natural-rate they discourage investment, and cause its value to drop below the rate of saving. The one process involves inflation; the other deflation.

This doctrine, it will be noted, assumes as axiomatic that there is always some rate which if effective would induce an amount of investment just equal to the amount of saving which will take place at that rate without evoking either an increase or a decrease in circulation.

Under a money economy such an assumption does not seem to be valid. Under a barter economy, the amount of saving and the cost of production of new capital would necessarily coincide. But as soon as a monetary system is introduced it becomes possible to make individual savings either through the purchase of new capital goods or through the accumulation of money; and *vice versa*, to finance the production of capital either by borrowing from savers or by drawing on the stocks of money held by entrepreneurs themselves or by others as the fruit of past saving. There are now three variables; the willingness to save; the willingness to borrow in order to produce new capital; and the relative attractiveness as a store of value of monetary funds and of other investments.

Equilibrium requires not only that the volume of investment be kept in line with the volume of saving; the demand for cash balances must be kept in equilibrium with the demand for securities. The condition of equilibrium is no longer a single rate, but a rate structure. Disequilibrium can result from the appearance of a general desire to turn balances into goods or securities (the extreme case is a flight from the currency), or in the other direction, from a new preference for increased balances over new loans. In times when confidence in the future of industry is high, the rate which entrepreneurs are willing to pay for an amount of purchasing power equal to the current volume of savings may be higher than the maximum which can be bid without inducing holders of cash and "savings deposits" to disgorge them and add their reserved purchasing power to the flow of savings. *Vice versa,* in times like the present the demand rate of entrepreneurs for the amount actually saved may be lower than the minimum necessary to induce savers to loan out their savings for new investment purposes instead of holding them in cash. To be sure, equilibrium could be attained, in theory, in flush

times if banks would pay interest on deposits at a rate higher than they could get for loans; in depressed periods, by charging a fee for handling deposits, supported by a special tax on cash hoards. This, given the present banking system, is a fantastic idea; but the situation which would require it in order to attain equilibrium through rate adjustment is not fantastic.

Keynes avoids this difficulty by a shift in the content of the term "natural-rate." At the outset (Chapter 11) the term means, as stated, the rate which would equilibrate the supply of funds offered by savers with the value of investment goods. Later, however, "natural-rate" means the rate which would induce entrepreneurs to borrow the whole amount which is actually being saved, while "market rate" means the rate they are giving for that proportion of savings which actually goes into industry and not into liquidation of bank loans or accumulation of savings deposits. At least I so interpret the following passages (II, 373):

> When prices are falling, profits low, the future uncertain and financial sentiment depressed and alarmed, the natural-rate of interest may fall, for a short period, almost to nothing. But it is precisely at such a time as this that lenders are most exigent and least inclined to embark their resources on long-term unless it be on the most unexceptionable security; so that the bond-rate, far from falling towards nothing, may be expected—apart from the operations of the Central Bank—to be higher than normal.

Under such conditions there is apparently no natural-rate which, if it were made the bank-rate, would effect equilibrium.

Professor Keynes' program of monetary reform contains less that is new than does his theoretical analysis. The chief planks in his platform are an enlargement of the powers and responsibilities of central banks, and the promotion of co-operation between them. The chief instruments of the policy are discount rates and open market operations.

As to the objective to be sought, and the practical tests of policy, Professor Keynes' discussion does not seem entirely consistent. In the latter part of the book the assumption apparently is that stability of prices, stability of employment, and the equilibrium of investment and saving all go together. For instance, "the test as to whether or not such equilibrium is being preserved can always be found in the stability or instability of the price level of output as a whole" (II, 220; see also Chapter 38). But in Volume I both the fundamental equations and the discussion show that the equilibrium of investment and savings, and the consequent maintenance of industrial stability, involve not stability of prices but conformity of the trend of prices to the trend of "efficiency earnings." "If money rates of earnings were uniformly fixed in relation to effort . . . the price level would change (assuming investment and savings to

be in equilibrium) with every change in efficiency and with inverse proportion to such change" (Vol. I, p. 166). This latter conclusion is in harmony with the second fundamental equation; the discussion in Volume II looks only to the second term of the equation. If a change in prices is due to an increase in the productivity of human effort, effort-earnings remaining constant, neither the Keynes equations nor, I believe, common experience suggest that equilibrium will be disturbed. It follows that stabilization of the price level against a downward tendency caused by increased efficiency will give rise to profits and initiate a cycle of over- and under-employment.

There also seems to be a change of viewpoint between the two volumes with regard to ultimate objectives. In Volume I (p. 17), "the maintenance of industrial stability and the optimum output" is endorsed as our main objective, but in Volume II (p. 222) occurs the following passage:

> The banks determine how much they will lend by reference to the quantity of their reserves (though this practice is, of course, forced on them by existing currency systems); whilst the heretics would have them determine it by reference to the quantity of the factors of production available to be employed; but neither of them propose to determine it by reference to the equilibrium between saving and investment, though this is the only criterion which would preserve the stability of prices.

Here stability of prices seems to be the ultimate objective, and stability of employment more or less irrelevant. The heretics (whose view is identical with the official view of the Federal Reserve Board as expounded in the *Tenth Annual Report*) seem to be more faithful to Keynes' theoretical doctrines than is Keynes.

It may be of interest to compare Professor Keynes' program with that of Professor Mises, the leading continental exponent of the Wicksell tradition. Both state the cause of dis-equilibrium in the same terms, a divergence between the market rate of interest and the natural-rate. But Mises finds the chief, if not the sole, source of disturbance in the capacity of the banks to expand the effective currency in response to the popular cry for cheap money, and proposes to destroy the evil at its root by requiring all bank deposits to be covered by 100 per cent gold reserves. This policy would make impossible the development of a discrepancy between "I" and "S" (except through hoarding and dishoarding of cash). By preventing booms it would, so Mises thinks, make it unnecessary to provide a remedy for slumps. If Mises' program were made less drastic for the transition period by provision for a fixed contingent of uncovered deposits, it would fit into Keynes' theoretical system better than does Keynes' own program. Being devoid of elasticity it would provide no remedy for seasonal strains or for emergency situa-

tions; but, if Keynes' theory is sound, the elasticity of the circulating medium is the primary source of cyclical instability, and hence of the need for emergency funds.

CHARLES O. HARDY

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The Economics of Money, Credit and Banking. By F. CYRIL JAMES. (New York: Ronald. 1930. Pp. xvi, 482. $4.00.)

To the great economic and social problems of an age there are always two approaches. On the one hand there is the radical approach proposing a greater or lesser reorganization and reconstruction of the economic order—an approach based upon the fundamental proposition that the existing system has been weighed and found wanting. The other approach finds little fault with the existing order *per se*, but has much to propose toward improving the utilization and control of the system. More and more frequently the latter viewpoint suggests that proper utilization and control of the economic structure are largely problems of prices which, in turn, represent derivatives of the principles and practices of public fiscal policy and private banking operation. Dr. James' book will prove a welcome addition to the available discussions emphasizing the economic and social aspects of private and public fiscal policy. Structural and legal details are all but omitted from this volume which the author hopes will permit the reader "to see the financial system as a coördinated organization and to appreciate some of the problems with which it is faced."

The first nine chapters are devoted to a rather careful statement of the usually presented principles of money and its co-partner, credit. Of these nine, two chapters are devoted specifically to the changes in monetary and credit theory and practice wrought by the World War. The next nineteen chapters consider banking organization and practice. Scattered among these nineteen chapters are some chapters discussing the distinctly theoretical economic and social aspects of credit policy. There is at the end a short chapter on the financial system as a whole and an appendix giving the charter and the statutes of the Bank for International Settlements. The point of view of the volume is that of the United States, although the reader cannot escape noticing the language and influence of British training on the author.

Throughout the volume Dr. James is quite careful to indicate whether a given conclusion is applicable to a static or to a dynamic social order. It is the fundamental position of the author that stabilization of prices is necessary to stabilization of the economic structure, and he proposes that the banks should be able to stabilize prices by means of the stabilization of credit. However, it is admitted that the "willingness to hold

money" and the "unspent margin" will vary enough from time to time to prevent complete stabilization. As a result of this theory, the author finds himself with a more or less unstable monetary policy even in a static order of society. The ultimate control of economic fluctuations appears to rest not only in the control of the volume of credit (p. 106) but also in the regulation of the use of credit. The latter lies beyond the jurisdiction of private or public control in most modern economic structures. The author holds that the relations between the federal reserve system and the government must ever become closer, but he does not believe this necessitates an intermingling of politics and banking. The suggestion (p. 428) that control by the federal reserve system might well supplant the present government regulation of private banking is worthy of some contemplation; and it is unfortunate that Dr. James does not give a more complete argument on the subject. The discussions of international monetary and credit policy follow the work of Cassel.

Some criticism may be directed against Dr. James' book on the ground that the arrangement beyond the first nine chapters seems illogical. Chapter 13 is weak. There are some trivial errors such as the first index number calculation (p. 45), which should be 109.09 per cent instead of 109.9 per cent and (p. 61) the par of exchange for the pound sterling is \$4.8665 instead of "precisely \$4.866." National Banking act (p. 196) refers to the Federal Reserve act. The discussion is not clear in making a distinction between money and mere purchasing power; nor is a sharp distinction made between credit and capital. Finally, some readers will wish for a more complete discussion of the effects of monetary and banking policy upon the distribution of wealth and incomes.

Although not everyone will agree with the details of Dr. James' theory, it is the opinion of the writer that the main arguments are sound and that the book will find many friends among teachers and students as well as among bankers who do not confine their interest to the immediate details of their own institution. It gives a well-balanced presentation of both the gold and the credit problems of the world without entering into the individualities of nations and without proposing the destruction of a pecuniary structure which has been erected over the era of modern industrialism.

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Banking Ratios: A Study of the Operating Results of Member Banks with Special Reference to the Twelfth Federal Reserve District and to California. By HORACE SECRIST and KEITH POWLISON. (Stanford University: Stanford University Press. 1930. Pp. xiv, 608. \$10.00.)

"they should avoid, in so far as possible, having (1) relatively high

This book is a sequel to the author's previous study of *Banking Standards under the Federal Reserve System: A Study of Norms, Trends, and Correlations of the Assets, Deposits, Expenses, and Earnings of Member Banks.* The earlier work was intended to reveal "banking standards and interrelations of banking processes for member banks for a given period for the country as a whole and, for part of this period and for certain processes, for member banks in the Boston and in the New York Federal Reserve Districts." The purpose of the present study as stated by the author is "to determine whether the same standards and interrelations hold for other places and for different groups at the same place." The study summarizes the "standards and interrelations of bank operations for national banks, by cities, for the country generally, for member banks in the Twelfth Federal Reserve District, and in particular for those in California."

The book, as its name indicates, is a study of banking ratios. It is an attempt to determine, in part, certain important ratios of loans and discounts and of total deposits to earning assets; of demand and of time deposits to earning assets; of demand and time to total deposits; of gross earnings, of total expense and of net earnings to earning assets; and of total expense and of net earnings to gross earnings. The conclusions of the volume do not "constitute formulas for the operation of individual banking institutions" but should be viewed "for banks collectively." The author states that the following conditions tend to be normal positive correlation or direct association of ratios of: (1) gross earnings, total expense, and net earnings to earnings assets with loans and discounts to earnings assets; (2) gross earnings, total expense, and net earnings with demand deposits either to earning assets or total deposits; (3) total expense with gross earnings; and (4) net earnings with gross earnings. On the other hand, for banks similarly viewed, negative correlation or inverse association obtains for ratios of: (1) gross earnings, total expense, and net earnings with ratios of time deposits either to earning assets or to total deposits; and (2) net earning ratios with ratios of total deposits to earning assets.

The results of this study provide a fund of information which should be useful as a guide in the management of individual banks. These ratios and interrelations found to apply to the banks examined in the Twelfth Federal Reserve District should shed light upon banks in other communities even though the conditions are not identical. If these are "translated into rules for effective management, banks should," according to the author, "strive to secure (1) relatively high ratios of loans and discounts to earning assets; (2) relatively high ratios of demand deposits to total deposits or to earning assets; and (3) relatively high ratios of gross earnings to earning assets." "On the contrary," it is stated,

"they should avoid, in so far as possible, having (1) relatively high ratios of total deposits to earning assets; and (2) relatively high ratios of time deposits to earning assets or to total deposits."

Valuable and interesting as such ratios are, it should not be assumed that they are permanent. Our banking system is undergoing gradual changes. Some of these changes are: increasing volume of time deposits in proportion to demand deposits; increase in security business; extension of branch banking; growth in trust business; increase in collateral loans; bank failures and the growth of interest in international banking. These changes will in the course of time produce new interrelations.

Changes and adjustments are constantly taking place in banking which tend to equalize conditions in one bank with those of other banks of similar size or location. One of the principal aims of the authors is to establish "normals, tendencies, trends, and interrelations of the operations of banks." These equalizing conditions are "observed and measured in regressive tendencies." The results of the studies presented in this book show definitely that there is a tendency for the various ratios to regress to type. This tendency is demonstrated by the fact that, as banks increase in size, a larger and larger proportion of the earning assets consist of loans and discounts. The same principle applies to banks located in larger cities (p. 12). These "regressive tendencies" of ratios run throughout the various studies forming a connection or thread of thought for the work as a whole. Such ratios may be taken not only as a record of what has "occurred in the past," but, "in the absence of fundamental modifications in banking methods, may be expected to occur in the future." This study should go far in upholding the idea that sound banking theory holds true in banking practice. *Banking Ratios* and other research projects carried out along the lines followed by Secrist should clarify our theories and assist us in seeing more clearly the problems and tendencies in banking.

The author points out that this book is to be used as a reference and is not "meant to be read." As a detailed study of norms, trends, and interrelations of banking operations, it will undoubtedly fill a very useful place. The book should be consulted from time to time in the study of the special subjects with which it deals. The results of the analyses of these data from the federal reserve districts under consideration show that there is unquestionably an important relationship between various banking operations. An appreciation or understanding of these relationships should be of great service to those who determine and carry out banking policies.

JOHN M. CHAPMAN

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Money Rates and Money Markets in the United States. By WINFIELD W. RIEFLER. (New York and London: Harper. 1930. Pp. xvii, 259. $4.00.)

In the past few years there has been accumulated a considerable body of data pertaining to the money market. The federal reserve banks and the division of Research and Statistics of the Federal Reserve Board have been responsible for much of this; and it is fitting that a member of the latter staff should undertake an organized and systematic study embodying the results of current work being done by that organization. The book under review, however, is more than a report of progress; it is a significant contribution to the literature of interest rates and money market conditions in the United States.

We may define the general aim of this study as an attempt to discover from empirical evidence, taken from a test period 1917-28, how money rates move and how they are related, and what influences and limits are seen to exist to federal reserve action in regulating and controlling the flow of short-term credit to business. In other words it attempts to answer the questions: What money rates are there? How do they move? What monetary factors cause them to change? What are the cause and effect relationships between them? Which ones are basic? Are any of them subject to conscious control? What can the reserve banks do to influence rates? This leaves unanswered the question of what the federal reserve policy should be, an inquiry which would involve the problem of how money rates influence business conditions. The author recognizes the importance of this problem in the preface and states his position; but he omits it from the text because he considers current findings inadequate to warrant more than tentative conclusions.

The book contains eleven chapters and two appendices. A general description and classification of money rates is followed by a detailed quantitative analysis of fluctuations and differentials in these rates, and the relationship of reserve bank operations and member bank borrowing at the reserve bank to money rates.

Comparisons are made of the three principal groups of money rates; namely, short and long-term open market rates, and customers' rates. These show on the one hand "amazing similarity of movement" (p. 15) caused by outside factors affecting the market as a whole, and on the other hand, a variety of rates with fluctuations and differentials, especially in the case of customers' loans, "which express specific difference in the character of loans" (p. 13), and local supply and demand factors characterizing overlapping competitive markets (Chapter 5).

The reserve banks exercise a general influence affecting the whole market, first, by stabilizing rates through open market operations and discount rate changes, and second, by changing pressure upon member

bank borrowings at the reserve banks. Changes in discount rates and in the volume of member bank borrowings find their first response in open market rates and are subsequently reflected in bond yields and customers' rates (pp. 60-61). It is in connection with customers' rates that the author makes his chief statistical contribution. Data on kinds of loans and rates charged were collected from banks in larger financial centers and in smaller cities (see Appendix 1) and these are here analyzed by types, cities and geographical districts (Chapters 4 and 5).

It is shown that customers' rates respond to general credit conditions through member bank borrowings, which in turn reflect federal reserve discount rates and open market operations. Local differences exist, however, even when such factors as risk, maturity and collateral are the same, and are to be accounted for by special influences such as the quality and competitive standing of individuals, and the marked variations between cities and districts corresponding to differences in bank connections, size of local money market, geographical location. The personal character of the bank-customer relationship reduces competition between localities to the point where these local differences in demand and supply factors are made effective in rates. The tendency of funds is to flow to large financial centers; and the great demand relative to supply in small communities accounts for the persistence in these rate differentials. They are, moreover, maintained by differentials in banking costs. Costs, chiefly operating, are higher in the West and South, lower in the East, and by about the same margin as differences in rates. Should competition (by minimizing personal bank-customer relationship) reduce rates to eastern levels, many banks in the West and South would be forced to suspend operations or to reduce costs. They are unable to do the latter because the same differences in local supply of funds which contribute to local differences in rates also contribute to differences in banking costs and profits.

Having concluded the treatment of the kinds of rates, their variations, and differentials in the competitive national market, and in loosely dispersed local markets, the author turns to the treatment of the initiating forces affecting money rates. He finds that the aggregate indebtedness of the member banks to the reserve banks constitutes one of the most important single factors in money rate fluctuations. The basic factors which determine the aggregate indebtedness of member banks are those which affect the volume of funds available to the banks as a whole. These factors are known and can be measured with precision, and can be analyzed according to their origin. But to do so requires the use of a new series of data bringing into a single statement all the factors affecting the demand for credit at the reserve banks. The construction of this

statement of debit and credit factors in the composite demand for reserve bank credit is described in Appendix 2. (See also *Federal Reserve Bulletin* for July, 1929, pp. 432-8.)

Dominant forces affecting money rates during recent years are discussed in Chapters 8, 9, and 10, which treat rate movements from 1917-28, in their historical setting. The importance of the several sources of demand for reserve funds are here examined, and the extent to which this demand as a whole is satisfied through member bank borrowing described. This is a significant review of banking developments in the post-war period, and presents a convincing case in support of the view that open market operations are at least as important as discount rates in federal reserve credit policy, since by open market dealings reserve banks can consciously affect the forces causing member banks to borrow (tradition "forces" them to contract); and rate changes are reflected in these borrowings.

Probably the most important generalization is that member bank indebtedness at the federal reserve banks varies directly with fluctuations in the basic interest rates—which are then transmitted to the others. It is important, therefore, to examine why member banks borrow. The reader gets the impression throughout that member bank borrowings are causal in their effects; that rates go up when banks borrow, and down when loans decline. This controversial subject is highly important since it is the very basis of present federal reserve policy.

The author's analysis of the theories of why banks borrow, and the tests of their validity, is the most complete treatment of this subject known to the reviewer. Yet the reader is not entirely convinced of the adequacy of the explanation. If space permitted, the reviewer would like to support the position that the evidence seems to show that both rates and borrowings are affected by common causes, and that reserve bank rediscount rates constitute one of these outside factors; that both profit motive and the necessity of maintaining liquid position, influence bank practice with regard to borrowing. More data and further study seem necessary before the effects of discount rates and open market operations and the "convention against borrowing" are fully understood.

In the final chapter the author presents an effective reconciliation of the economist's and the business man's conception of interest and money rates. The present inquiry should serve to enrich the doctrinal interpretation of interest in the following respects (p. 214 ff.): (1) The importance of risk is overemphasized in theoretical discussions, and other differences in terms and conditions of loans are too much neglected. (2) The concept of a single homogeneous money market with a common pool of funds flowing to investments offering the least risk is too super-

ficial. This single market is found to be a composite system of overlapping local markets responsive, however, to general influences. (3) The adjustment of money rates to basic economic forces is not automatic; it may be affected by reserve bank operations, in fact the author intimates that it is a function of central banks to cause money rates to respond as promptly as possible to changes in economic conditions; he points out that such response may be sluggish.

This study should prove highly valuable to bankers, business men, and students who read the *Federal Reserve Bulletins* from month to month; for, though some of the data and analyses developed by the author have appeared both in the statistical and textual material of this official publication of the Federal Reserve Board, this treatment is more complete and is presented here for the first time in a carefully planned and organized whole. Dr. E. A. Goldenweiser, the director of Division of Research and Statistics, states in his introduction that the conclusions and opinions expressed by the author are in no way official; but they have undergone the examination and criticism of the members of the staff and therefore probably represent the thought back of federal reserve policy.

A review of this book would not be complete without reference to the careful and painstaking character of the work. The preparation and presentation of the material show abundant evidence of discriminating use of statistical methods in handling data which have been carefully checked for technical accuracy. A simple and lucid style makes easy to read what might otherwise be abstruse and involved. The set-up is similar to W. R. Burgess's *The Reserve Banks and the Money Market,* and it may indeed be considered a sister volume in the Harper series. Unfortunately its usefulness is somewhat impaired by the lack of an index. Also, a brief selected bibliography of references giving a setting to this subject would serve a useful purpose in guiding the students interested in additional reading.

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Federal Reserve Policy, 1921-1930. By Harold L. Reed. (New York: McGraw-Hill. 1930. Pp. xi, 207. $2.50.)

This book may be regarded as a sequel to the author's earlier work, *The Development of Federal Reserve Policy,* published in 1922. As before, Professor Reed sets himself the task of describing and interpreting the system's operations in meeting the specific problems confronting it. His presentation is, therefore, little concerned with the basic ends of policy; it is chronological and episodic rather than analytical. While this method of approach to the subject is readily suggested by the Fed-

eral Reserve Board's failure to pursue consistently any single policy, it tends to obscure the underlying banking theories which motivate the Board's specific policies. Within the limits to which Professor Reed has confined himself, however, his treatment of the Board's aim and methods is a valuable contribution to our knowledge in this field.

Although "it is demand deposits which are employed by checks as our principal exchange media" (p. 173), the author constantly identifies "credit" with loans and investments. The importance of distinguishing clearly between these two concepts may be illustrated by a few examples. Assuming that movements of loans and investments are sufficiently indicative of the movement of demand deposits, Professor Reed concludes that the initiation of the credit expansion policy of 1927 was delayed until too late in the year; that the rate of credit expansion in that period was "highly excessive" (p. 185); and that "the restraining devices were employed too mildly in the spring of 1928" (p. 185). Had he centered his attention on the movements of demand deposits directly, it is doubtful if these would have been his views. Actually, demand deposits of reporting member banks increased as much in the first half of 1927 as in the latter half. Whether for the year as a whole this expansion was highly excessive, is a debatable question. The total expansion of demand deposits of member banks in 1927 was 6.2 per cent; but it is to be remembered that the expansion in the previous two years had been negligible. Moreover, the rate was but half that of 1924, which Professor Reed believes was justifiable. The restriction policy pursued by the Board in the first half of 1928 has often been termed too mild. It appears to the reviewer that a policy which can increase member banks' indebtedness to the reserve banks to a level above one billion dollars, the highest figure since 1921, and can bring about a decrease of nearly a billion dollars in member banks' demand deposits, and a rise in average call money rate from 4.15 per cent to 6.32 per cent, all within a period of six months, is an extremely drastic policy. That this restrictive policy was not effective in checking the upward trend of security prices surely indicates that the cost of borrowed money is not the determining factor in security price movements. If company earnings are increasing and, of more importance, are expected to continue increasing, it is difficult to see how stock prices and security loans may be kept down.

Professor Reed discusses at some length whether the Board's endeavor to check the growth of security loans was justified. He demonstrates to the reviewer's satisfaction that the Board was mistaken in its belief that the stock market "absorbs" credit; in attributing much of the rise in interest rates to business conditions and the Board's own policy, he further differs with the Board; he does not believe that the

stock market crash was responsible for the business depression. Nevertheless, he concludes that the Board's policy was justified. For "threatened loss of credit control was the real source of apprehension, and speculative use of credit . . . threatened an excessive expansion of credit in general. The right culprit was indicated but on precisely the wrong counts" (p. 176).

Did speculative operations during this period, however, really threaten a loss of credit control? The volume of credit (demand deposits) is limited by member bank reserves, which can only be increased by an inflow of cash or of gold, or by borrowing from, or by the open market operations of the federal reserve banks. Allowing for changes in earmarked gold, there was a net outflow, from January, 1928, to August, 1929, of $69,000,000. The net outflow in 1928 was $511,000,000. There was a net increase of federal reserve notes in circulation in the same period of $282,000,000. It would seem, therefore, that reserve banks had full control of member bank reserves and hence of the volume of credit. It is difficult to reconcile Professor Reed's statement that reserve policy was ineffective in bringing about a general credit contraction in 1928 with the large decline in member bank deposits that actually occurred.

It is regrettable, in view of Professor Reed's belief in the necessity of a steady secular expansion of credit, that he apparently is not aware that, for the five-year period 1925-29, there was no increase in demand deposits of member banks, the expansion of 1927 being cancelled by the contraction of 1928. Surely this may have some bearing on world prices and the severity of the depression of 1930.

One of the most valuable lessons that may be learned from a careful reading of Professor Reed's book is the contradictory character of the various aims pursued by the Board. At one time it follows the "needs of business" criterion as indicated by the indexes of production; at another it seeks to stimulate the "needs of business" by lower interest rates. Sometimes the end pursued has been to aid Europe; at other times it has ignored production indexes and international considerations in order to check speculation. At all times it has sought to aid agriculture, although the policies adopted, for instance the credit restriction policy of 1928-29, have not always contributed to that end. There is assuredly need for a clearer formulation of the aims of central banking policy and the best methods to achieve those aims. Professor Reed has provided us with a background of experience which is indispensable in this connection.

There is an obvious typographical error in Table XXXI where all the minus signs should be plus.

Lauchlin B. Currie

Harvard University

Europe: The World's Banker, 1870-1914. By HERBERT FEIS. (New Haven: Yale Univ. Press. 1930. Pp. xxiii, 469. $5.00.)

This study of the migration of capital is limited to the investments of the British, the French and the Germans during the period from 1870 to the World War; the investigation does not include the capital export of these three European powers into the Central American and South American countries, which after all absorbed about one-sixth of the total European foreign investments. Moreover, no attempt is made to contribute to our knowledge of the operation of the financial mechanism by which the capital is transferred from creditor to debtor nations or of the controversy on the effects of such transfers on trade balances and prices.

Mr. Feis's book has gained much by this wise self-restriction. The field of international investments is so boundless that no treatise attempting to cover the field as a whole could be called comprehensive. However, in his self-ordained limits, Mr. Feis has written a most valuable piece of work, describing the close relationship of international finance with international politics. The historian and the political scientist find an abundance of interestingly presented material; the economist, however, is bound to learn most of all, namely, that the traditional theory that international capital movements flow from capital markets with low interest rates to capital markets with higher rates is hardly able to explain the actual facts of pre-war European affairs. To quote Mr. Feis: "The uses which the spared capital of western Europe found were often determined by political circumstance rather than by economic or financial calculation. The traditional theory of capital movement given in the economic texts, wherein capital is portrayed as a fluid agent of production put at the service of those who paid or promised most, is inadequate to account for the direction capital took before the war. In the lending countries international financial transactions were supervised in accord with calculations of national advantage which were often unrelated to the direct financial inducement offered the owners of capital." Feis is not at all standing alone with this thesis. During the last two years Professor Jacob Viner of Chicago, Dr. Somary of Zurich and Dr. Bente of Hamburg[1] have expressed themselves likewise on the matter.

It seems that the world crisis of the year 1930 may be a turning point in the development of capital migration. The remedies proposed to over-

[1] Jacob Viner, "Political Aspects of International Finance" in *Journal of Business,* April, 1928.

Felix Somary, *Wandlungen der Weltwirtschaft,* Tübingen, 1930.

Hermann Bente, "Die Marktwirtschaftliche Bedeutung der Kapitalsanlage im Ausland," in *Weltwirtschaftliches Archiv,* July, 1930.

W. H. C. Laves, "German Governmental Influence on Foreign Investments. 1871-1915," in *Political Science Quarterly,* Dec., 1928.

come the present dilemma aim either at national self-sufficiency and increased economic nationalism or at international economic coöperation on a scale as never practised before. The new economic nationalism finds its evidence in even higher tariff walls, in subventions for "vital" industries, in control of the export and import of capital and labor and in the growing lack of confidence on the part of investors to buy foreign securities. The new economic coöperation, on the contrary, calls for huge migrations of capital and, to some extent, of labor, to develop backward countries and to stimulate exports from the industrial nations that now suffer so drastically from over-capacity of industries, low profits and unemployment.

Feis does not deal with these problems, confining his book to the period that closed with the beginning of the World War. But his postulations arrived at from the conclusions of his study clearly indicate that he believes in the second alternative. "Before the international activities of capital can become a strong support for peace and strengthen the conditions of peace, the world in which the activities go on must be transformed in two directions. Governments of borrowing countries must improve in their art so that injustice, disorder, and waste do not invite external conquest. The peoples of the wealthy powers must deeply care for international peace and direct their acts accordingly. If these conditions prevail, the international movement of capital will record itself merely as an instrument of a mutually beneficial process of development. Capital which moves abroad will not carry with it the power of an organized national state, nor will it be forced to serve the political purposes of the state. International political machinery will adjust the difficulties that are incident to its ventures. The annals of the next epoch will relate fewer disturbances, greater creations."

The reviewer would not do justice to the book if he did not commend Mr. Feis on the lucidity and elegance of his style that make the reading of this mosaic picture of European politics and finance an intellectual enjoyment of the first order.

Robert Weidenhammer

University of Minnesota

NEW BOOKS

Baxendale, A. S. *Sane currency.* (London: Cecil Palmer. Pp. 99. 2s. 6d.)

Beckhart, B. H., and others. *The banking system of Canada.* (New York: Holt. 1929. Pp. 206. $2.50; students' ed., $2.)

Reprinted from *Foreign Banking Systems.*

Brady, J. E., editor. *Federal banking laws. 1930 edition, with amendments to January 1, 1930.* (New York: Brady Pub. Co. 1930. Pp. 251. $3.50.)

Brady, J. E., editor. *The Uniform Negotiable Instruments act. 1930 edition.* (New York: Brady Pub. Corp. Pp. 237. $3.50.)

Burgess, W. R., editor *Interpretations of federal reserve policy in the speeches and writings of Benjamin Strong.* (New York: Harper. 1930. Pp. xxvii, 343. $4.)

Carothers, N. *Fractional money: a history of the small coins and fractional paper currency of the United States.* (New York: Wiley. 1930. Pp. xiii, 372. $4.)

Here, for the first time, can be found the connected history of a neglected element in our currency system—the "fractional money" or "coins and paper notes of a value less than one dollar." Such an addition to our literature is most welcome.

Other currency histories have emphasized the questions of bimetallism, monetary standards and paper currencies. Professor Carothers' book maintains that the attempts to secure and retain a fractional currency have been decisive factors bearing on many of the important events of our financial history. The author finds that bimetallism, rather than gold monometallism, was chosen by Hamilton in 1792 in order to provide for fractional coins, since gold coins of small denominations would not be practical. Again, the law of 1853 making the smaller silver coins fiduciary, and so assuring their circulation, was an unintentional step towards the gold standard. The law of 1873, also, was essentially a rewriting of existing laws, many of which dealt with our fractional money, although this law likewise ended bimetallism in the country.

In connection with the law of 1853 Carothers refutes the contention of Laughlin and others that Congress intended to adopt the gold standard at that time. The author also takes issue with Laughlin's view that in 1873 Congress, with full realization of the possible consequences, deliberately demonetized silver. He further denies the common assertion that the changes of the bimetallic ratio in 1834 and 1837 rapidly drove silver from circulation. The history of the causes of this tardy operation of Gresham's law is only one of many instances in the book of interesting material which should be valuable to the teacher of monetary principles.

Although our present fractional currency is considered satisfactory, it has been achieved by "muddling through." For the first eighty years there was an appalling ignorance of the principles governing subsidiary coinage, and it would seem that most of the workable laws enacted during that period were indeed "the fortuitous result of the action of inexpert legislators." The reader cannot but agree with Professor Carothers' frequent criticisms of the many blunders of Congress, and the errors and the illegal and semi-corrupt activities of various treasury and mint officials.

The volume is primarily concerned with the history of the subsidiary and minor coins since 1792, although there are short chapters on colonial and revolutionary fractional currency, excellent chapters on private and government fractional paper money during the Civil War, and a discussion of the hybrid trade and "standard" silver dollars after 1873. In the concluding chapters the principles of subsidiary and minor coinage are restated, and the author makes four suggestions for the further improvement of our fractional currency: (1) there should be legal provision for the administrative reduction of the silver proportion of our subsidiary coins, to prevent their expulsion should the price of silver suddenly rise;

(2) the one-cent piece tarnishes quickly, and in some way should be made more attractive; (3) there should be some convenient method of making small remittances by mail, ungummed postage stamps being a possibility; and (4) either the one or the two dollar bill, but preferably the former, should be abolished.

H. B. Dolbeare

Cole, G. D. H. *Gold, credit and unemployment.* (London: Allen & Unwin. Pp. 165. 5s.)

Darling, J. F. *The "rex." A new money to unify the empire.* (London: P. S. King. Pp. 47. 2s.)

Day, J. P. *An introduction to the money and banking system of the United States.* (London: Macmillan. Pp. 120. 4s. 6d.)

Del Vecchio, G. *Grundlinien der Geldtheorie.* (Tübingen: Mohr. 1930. Pp. xii, 158. M.11.)

Flink, S. *The German Reichsbank and economic Germany.* (New York and London: Harper. 1930. Pp. x, 267. $3.50.)

As indicated by the subtitle, this is "a study of the policies of the Reichsbank in their relation to the economic development of Germany, with special reference to the period after 1923." The volume starts with the German Bank act of 1875 and concludes with an analysis of the Young Plan, followed by a few pages of comment on recent economic developments in Germany and her future problems. Both the author and Dr. Henry Parker Willis, who wrote the introduction, give particularly high praise to Dr. Hjalmar Schacht who was president of the Reichsbank during the most troublesome years of the post-war period. Presumably the fact that it was printed in Germany explains the very large number of typographical errors.

E. M. P.

Griffiths, N. *A history of the government savings bank of New South Wales.* (Sydney: Govt. Savings Bank. Pp. 95.)

Ham, A. H. and Robinson, L. G. *A credit union primer.* Rev. 1930, by R. Nugent. (New York: Russell Sage Foundation. 1930. Pp. 149.)

Harr, L. and Harris, W. C. *Banking theory and practice.* (New York: McGraw-Hill. 1930. Pp. ix, 562. $4.)

This volume contains an excellent discussion of practical banking together with a considerable amount of descriptive material relating to banking matters. The first ten chapters are given over to the subjects of bank incorporation, deposits, bank notes, and the liabilities of directors and stockholders. The next fourteen chapters cover the work of the various departments of a large commercial banking house. The description, however, is general in character. The federal reserve system is surveyed in six chapters; three more are used to present the characteristics of certain other kinds of credit companies, such as savings banks, building and loan associations, investment trusts, etc., and one chapter each is devoted to agricultural credit, branch banking, and bank examinations. The amount of space given to the discussion of banking theory is, however, slight and the material relating thereto is so inconsequential in character that one wonders why the word "theory" was included in the title.

I. B. C.

Helderman, L. C. *National and state banks: a study of their origins.* (Boston: Houghton Mifflin. 1930. Pp. x, 178. $2.50.)

Hoopingarner, D. L. *The place of the small loan business in retail credits: a phase of consumer credit.* Address before the southern conference of the National Retail Credit Association at Chattanooga, Tennessee, March, 1930. (New York: Beneficial Industrial Loan Corp. 1930. Pp. 13.)

Koch, A. *Banken und Bankgeschäfte unter besonderer Berücksichtigung der Rechtsverhältnisse.* (Jena: Fischer. 1931. Pp. viii, 329. Rmk.17.50.)

Marvill, A. H. and Leonard, J. L. *Banks and banking: the business man and his bank.* (Philadelphia: LaFayette Inst. 1930. Pp. 48.)

Mendès-France, P. *La banque internationale.* (Paris: Librarie Valois.)

Mills, F. C. *Some aspects of the price recession of 1929-1930.* News-Bull. no. 40. (New York: National Bureau of Econ. Research. 1930. Pp. 8.)

Peddie, J. T. *The dual system of stabilisation.* (London: Macmillan. Pp. 191. 8s. 6d.)

Piquet, H. S. *Building and loan associations in New Jersey.* (Princeton: Princeton Univ. Press. 1930. Pp. xxx, 343. $4.)

Rau, B. R. *Present-day banking in India.* 3rd ed. enl. (Calcutta: Univ. of Calcutta. 1930. Pp. xviii, 686.)

The author has rewritten his original work to cover the "changes that have taken place during the eventful years of 1925-27." The most important additions are the chapters on "The Central Bank of Issue," "Organized banking in the days of John Company," "The capital market and the investment market," "The loan companies of Bengal," and "Recent monetary reform." An interesting chapter for the American reader is chapter 14, which describes the hoarding habits of the native population.

Rittershausen, H. *Arbeitslosigkeit und Kapitalbildung. Zugleich ein bankpolitisches Program zur Bekämpfung der Wirtschaftskrise.* (Jena: Fischer. 1930. Pp. xiv, 154. Rmk. 7.50.)

Ryan, F. W. *Family finance in the United States.* Reprinted from the *Journal of Business* of the Univ. of Chicago, vol. iii, no. 4. (Chicago: Univ. of Chicago Press. 1930. Pp. 402-423.)

Schmitz, J. *Inflation und Stabilisierung in Frankreich, 1914-28.* (Bonn: Kurt Schroeder. 1930. Pp. 227. Rm.11.)

Sutcliffe, W. G. and Bond, L. A. *Savings banks and savings department management.* (New York and London: Harper. 1930. Pp. x, 432. $5.)

In the past ten years there has been an increase in the volume of savings deposits in commercial banks as against demand deposits. It is estimated that 80 per cent of all banks in the United States now receive savings deposits.

This volume is prepared particularly for those engaged in this branch of the banking business. It deals with the duties of officers, procedure in making deposits, withdrawals, handling checks, fiduciary accounts, lost pass books, bookkeeping, investments, and savings bank life insurance.

Tregoe, J. H. *Credit and its management.* (New York and London: Harper. 1930. Pp. viii, 196. $3.)

A serviceable text, written by the former president and executive manager of the National Association of Credit Men. His treatment, therefore, is based upon years of practical experience.

Trende, A., editor. *Forschungen zur internationalen Finanz und Bankge-*

schichte. Barthold Georg Niebuhr als Finanz und Bankmann. (Berlin: Berliner Kommissionsbuchhandlung. 1929. Pp. xvi, 304.)

WHITMORE, F. *The money machine.* (London: Pitman. Pp. 132. 5s.)

Banco Central del Ecuador: institución de derecho privado. Bull. no. 40. (Quito: Banco Central del Ecuador. 1930. Pp. 22.)

Interim report of the gold delegation of the Financial Committee of the League of Nations. Pubs. ii, econ. and finan. (Geneva: League of Nations. 1930. Pp. 120.)

Legislation on gold. Pubs. ii, econ. and finan. (Geneva: League of Nations. 1930. Pp. 375.)

Contains, in addition to summarized information in regard to gold legislation in practically all countries, tables showing requirements as to redemption, reserves, place of deposit of gold reserves, purchase of gold, and restrictions on import and export of gold.

Selected documents submitted to the gold delegation of the Financial Committee of the League of Nations. Pubs. ii, econ. and finan. (Geneva: League of Nations. 1930. Pp. 87.)

Contains articles on "Monetary stability and the gold standard" and "The economic consequences of changes in the value of gold," by Sir Henry Strakosch; "Price stabilisation" and "The working of the gold standard under present conditions," by O. M. W. Sprague; "Undue fluctuations of the purchasing power of gold," by Jacques Rueff; "The functioning of the gold standard" and "International price level adjustments," by L. J. A. Trip; and "The reform of the gold exchange standard," by Feliks Mlynarski.

Public Finance, Taxation, and Tariff

NEW BOOKS

BLAKEY, R. G. *State income taxation.* Pub. no. 31. (Minneapolis: League of Minnesota Municipalities. 1930. Pp. 33. 50c.)

A useful compilation showing in condensed form the chief features of state income taxes, including administration. A brief bibliography is added.

BLOUGH, J. R. *The geographical problem in Wisconsin taxation.* Bull. no. 39. (Madison: Wisconsin Tax Commission. 1930. Pp. 99.)

BRÄUER, K. *Reichs-Tabakmonopol oder Tabak-Verbrauchsteuer? Ein Beitrag zur Finanz und Steuerpolitik des Deutschen Reiches.* Finanzwissenschaftliche und volkswirtschaftliche Studien, Heft 21. (Jena: Fischer. 1931. Pp. ix, 164. Rmk.7.50.)

BRYAN, M. H. *The fiscal position of Georgia.* Study no. 3. (Athens: Univ. of Georgia Bureau of Business Research. 1930. Pp. xii, 120. $1.)

Professor Bryan's is the first of two exceedingly useful recent studies of the fiscal situation in the state of Georgia. It is designed primarily to provide the facts respecting the financial problems of the state, while Professor Lutz's monograph (to be noted in June) is intended to offer a solution for these problems. The author gives little attention to local problems.

In the light of all that was said a decade or two ago about segregation of sources of state and local revenue, it is of interest to find Professor Bryan, with Professor Lutz, the California Tax Commission, and others declaring

emphatically against separation. Indeed, Bryan is of the opinion (pp. 89 ff.) that the state levy on property cannot and should not be abandoned in the reasonably near future. Certain other tax problems on which he expresses himself in no uncertain terms include the desirability of abandoning allocation of tax receipts by means of revenue measures and the substitution of sensible budgeting and the wisdom of defeating the proposed income tax amendment to the state constitution, which would severely limit the possibilities of income taxation and still further restrict the legislature in its use of the property tax for state purposes.

James W. Martin

Cassidy, J. R. and Dargusch, C. S. *A treatise on the laws of estate and inheritance taxation. Ohio and federal, with statutes, forms and charts.* (Cincinnati: W. H. Anderson Co. 1930. Pp. 483.)

Published in 1923 under the title *A Treatise on the Ohio Law of Inheritance Taxation.*

Chapman, H. H. and Pingree, D. *Tax delinquency in the forest counties of the Lake states.* Progress report of the Forest Taxation Inquiry, no. 10. (Washington: Supt. Docs. 1930.)

Compton, R. T. *Fiscal problems of rural decline. A study of the methods of financing the costs of government in the economically decadent rural areas of New York State.* Special report no. 2. (Albany: N.Y. State Tax Commission. 1929. Pp. 283.)

This is the second special report by the New York State Tax Commission of the work done by fellows supported by the commission in Columbia, Cornell, New York, and Yale University. Part I of the monograph is descriptive of the general economic, governmental, and fiscal situation in New York State.

The body of the study is in Part II (pp. 85 ff.), which begins with a chapter devoted to a general discussion of the results of the fiscal system of the state. In this it is shown that the property tax is essentially regressive; that it imposes heavier burdens on industries, like agriculture, which utilize comparatively large proportions of real property; that its administration is unfortunately decentralized; and that the burden of supporting governmental activities is consequently so distributed as to result in gross inequalities. Finally, solutions which have been offered by others are summarized critically and the views of the author presented. It is Compton's opinion that considerable improvement can be effected by: (a) centralization of tax administration (especially of assessments); (b) elimination of the fee system to reduce cost; (c) adoption of a more central unit of support for highways; and (d) consolidation of local government units, especially of towns and school districts. Throughout the work, but especially noticeable in this critical part, certain aspects of methodology are of particular interest. (1) The author draws on relatively few of the earlier studies in cases where the evidence available would be peculiarly effective (pp. 93, 94). (2) He sometimes uses older statistical data where a little computation would give up-to-date figures (Table 13, p. 115). (3) He quotes numerous long passages from readily available materials. (4) He devotes a surprisingly generous amount of space to questions having only an indirect bearing on "fiscal problems of rural decline." However, while the work may be less original and unified than one could wish,

it is easy to agree with the New York commission that the stipend used to encourage the investigation was well spent.

JAMES W. MARTIN

DETTMER, F. *Die Gewerbesteuer in Deutschland im System der Geldwirtschaft und der Kapitalwirtschaft.* Heft 2. (Bonn and Leipzig: Kurt Schroeder. 1930. Pp. 106. R.M.4.)

ELDRIDGE, J. G. and DURRANCE, O. L. *The assessment of real estate for purposes of taxation: a study in local taxation.* Econ. ser., vol. i, no. 1. (Gainesville: Univ. of Florida Bureau of Econ. and Bus. Research. 1930. Pp. 30.)

FITZPATRICK, J. T., editor. *Tax law and other general laws relating to taxation of the state of New York, with all amendments to the end of the legislative session of 1930.* (New York: Baker Voorhis. Albany: M. Bender. 1930. Pp. 481.)

GRESSENT, A. G. *Finances italiennes.* (Paris: Valois. 1930. Pp. xxiii, 172.)

GROVES, H. M. *Ability to pay and the tax system in Dane County, Wisconsin.* Bull. no. 2. (Madison: Univ. of Wisconsin. 1930. Pp. 33.)

A study of the distribution of the property, state and federal income taxes in Dane County, Wisconsin, for the purpose of determining to what extent the incidence corresponds to "ability to pay." The expression, "ability to pay," is presumed to be synonymous with income received. In general, it is found that, measured thus, professional people pay less than 1 per cent of income in taxes though rent receivers pay more than 44 per cent; cities, where incomes average much higher than in villages and rural communities, pay just over 3 per cent of income in taxes, while residents of towns pay nearly 13 per cent. In interpreting results, Professor Groves concludes that: considerations of the benefit principle do not "substantially alter" the results arrived at without reference to that question; the difference between earned and unearned incomes does not justify a departure from a pure income basis of measuring ability to pay; taxes paid on property not earning income do not affect results since they are not included in the study; while tax shifting may modify the results of the analysis, it will not invalidate the general conclusions; and income received as dividends is subject to additional taxation to the extent that the corporation serves as a tax collector.

JAMES W. MARTIN

HALL, R. C. and HERBERT, P. A. *Property taxation in selected towns in the forest land regions of Minnesota.* Progress report of the Forest Taxation Inquiry, no. 9. (Washington: Supt. Docs. 1930.)

HARGREAVES, E. L. *The national debt.* (New York: Longmans, Green. London: Edward Arnold. 1930. Pp. vii, 303. $6.)

The study, as stated by the author, is a history of the British national debt as a continuous development extending over a period of nearly two hundred and forty years, and is not concerned with the theory of public indebtedness as expounded in works on public finance. The author has confined himself to this stated purpose, although the reader frequently wishes he had not. Necessarily the views of many great British scholars and statesmen, not all of which are in agreement, must be set forth; and

one sometimes feels that the author has missed a chance for valuable analytical and constructive criticism. After the views of statesmen from Walpole to Snowden, the reader feels the desire for more analysis and conclusion as to the relative merits of the proposals.

The foregoing is not meant to detract from what the author has done. He has admirably traced the development of the British debt through the different policies which were adopted from time to time. The subsequent results are often sufficient evidence of the desirability of the policy adopted at a particular time. The fact that the policy of handling the debt frequently changed with a change in administrative authority indicates that there has been no general agreement as to the merits of different alternatives, while a change of policy within a single administration because of extenuating circumstances, such as war, indicates that an accepted policy may not be considered feasible under all conditions. The policy to be pursued may also be influenced by the action of other governments as is indicated by the tenor of the Balfour note that Great Britain would claim only such sums by way of reparations and inter-ally debt payments as shall in the aggregate be equal to the sums due from her to the government of the United States (p. 284).

The treatment of the development and ups and downs of the sinking fund will be of especial interest to those who have had to do with this form of debt payment. Because of their present significance, the discussion of war and post-war borrowings and the problem of repayment is worthy of special study. The following chapter headings indicate the scope of the study: the origin of the debt; the sinking fund; consolidation—the origin of the stocks; the Seven Years' War and the War of Independence; eighteenth century views on the debt; the revival of the sinking fund; the war with France; the abandonment of the sinking fund; 1830-60; terminable annuities; two and a half per cent; war and post-war borrowings; the problem of repayment.

M. H. Hunter

Harper, F. F. G. and Harper, L. A., editors. *Harper's United States customs tariff: act of June 17, 1930.* (San Francisco: Harper & Harper. 1930. Pp. xvi, 464.)

Hibschman, H. *Should church property be tax exempt?* (Girard, Kan.: Haldeman-Julius Pubs. 1930. Pp. 62.)

Kiernan, T. J. *History of the financial administration of Ireland to 1817.* (London: P. S. King. 1930. Pp. xi, 372. 15s.)

Körner, H. *Die allgemeine Vermögenssteuer in der deutschen Wirtschaftsentwicklung.* (Bonn and Leipzig: Kurt Schroeder. 1930. Pp. 128. R.M.4.40.)

Leffler, G. L. *Wisconsin industry and the Wisconsin tax system.* Bull. no. 1. (Madison: Univ. of Wisconsin Bureau of Business and Economic Research. 1930. Pp. 85.)

For several years opponents of the imposition of state income taxes have pointed to Wisconsin as a horrible example of what is certain to happen to a state that seeks thus to raise revenue. Mr. Leffler attempts here to determine whether or not it is true that Wisconsin industry has been ruined by the income tax and whether, in fact, the state is so overtaxed as opponents of the "Wisconsin idea" imply.

The first 35 pages are devoted to testing whether or not Wisconsin industry has been making relatively slow progress during the past several years. The state is compared by means of thirteen statistical measures of manufacturing progress with New York, Ohio, Indiana, Illinois, Michigan, Minnesota, and the United States as a whole. The results indicate that all these states except one show a position well above the United States as a whole and that Wisconsin stands easily at the head of the group.

The second and third parts are devoted to a study of the relative tax burden in Wisconsin and her neighbors. This analysis shows that the general tax burden in Wisconsin is well below the average for the several states with which it is compared. So far as the taxation of industrial plants is concerned, it appears that Wisconsin is neither one of the states having the lowest tax burden nor one of those having the highest. Apparently taxes, measured by the ratio of the total to net income, are lower than in the average state and also below those in most of the six other states studied in detail.

Thus, the author, though unable to arrive at any final judgment as to the relationship between taxation and industrial development, is in a position to say that foolish taxation has not blasted the possibilities of industrial progress in the Badger State. Indeed (one feels after reading the bulletin) the author believes that, if the Wisconsin income tax has caused the present condition, the state would do well to use it more generously.

James W. Martin

Morrison, H. C. *School revenue.* (Chicago: Univ. of Chicago Press. 1930. Pp. x, 242. $2.50.)

One of the few scholars of this country who has a broad knowledge of the history of thought, a wise philosophy of education and also some comprehension of the economic problems of social life gives expression, in this thin volume, to some significant ideas on school finance. Although the title is *School Revenue,* much of the text is concerned with school expenditures as well, while chapter 7 (pp. 130-163) deals with taxation in general. Thus, in spite of the modesty of the author (p. 236), the book is essentially a statement of Professor Morrison's views of what ought to be, in the field of educational finance.

In so far as it is of particular interest to economists, the argument (aside from that in chapter 7) may be briefly, and hence inadequately, summarized. The Industrial Revolution has advanced the productive mechanism of society to a point where it is possible to release children and teachers from the making of food and clothing, and indeed has made this necessary as "the only permanent solution of the unemployment problem" (p. 42), since the school can absorb that part of the population released by improvement of machinery.[1] Indeed, if society is to maintain a high state of productivity, generous support of education for effective citizenship will be essential. That is, such expenditures may be regarded as in the long run reproductive. However, it is to be emphasized that educational facilities not for general citizenship purposes ought to be paid for by those who use them. For example, university students should gen-

[1] Note that the classical argument is ignored (*cf.* Mill, *Principles of Political Economy,* Book I, chap. 5, sec. 3).

erally be expected to pay the cost of their instruction just as motorists pay for road service through gasoline taxes. However, if the public is to devote large sums to the education of the young for sound, productive citizenship, it should be done in such way as to educate children in general, not merely those who happen to live in rich cities. Otherwise, even in those communities which are able and willing to maintain adequate educational facilities, there will be a continual infiltration of uneducated immigrants from backward areas nearby. In every attempt to meet the situation by means of equalization funds, there have been elements of failure, due largely to the fact that the basis of equalization—property value—was undefinable and to the fact that the procedure was wrong in principle, since it was legislative rather than administrative.

The really adequate solution is suggested by two developments already accepted. In the first place the city school district contains numerous schools, but funds are allocated to each from the administrative offices, not in direct or inverse proportion to property values near the school, but in proportion to the need for money to meet an established standard of educational opportunity. Likewise in Delaware and, to a less extent in New Hampshire, the state in large measure has become the unit of school support. The suggestion is that every state should tend more and more to assume complete responsibility, so that there would come to be no more a problem of equalization between different communities in the state than there now is between different schools in the typical large city.

The entire discussion is stimulating, though as the author points out (p. vi) "no attempt has been made to produce a handy collection of recipes for amateurs." Nevertheless one must confess some disappointment that the economics of the situation should, here and there, be handled with so little discrimination. For instance, such conclusions as the following may be seriously questioned in the light of current experience: "We have only an academic interest in excises, for there is not likely ever to be large school revenue from them" (p. 132); the wisdom of an inheritance tax from a fiscal point of view is open to serious question (p. 135); the United States is "economically self-contained" (p. 141); the liquor trade and the real estate tax constitute the "two principal factors responsible for corrupt local government in the United States" (p. 152); or city real estate is typically valued at 30 per cent to 40 per cent of selling price in the United States (p. 153).[2] Other conclusions, though not contrary to overwhelming evidence, may seem hasty, especially in view of the fact that they are supported by no evidence whatever; for example, that ability to pay taxes is measured by equality of sacrifice (p. 146);[3] that taxes on real estate are "as vicious as the tax on personalty" (p. 154); that war income taxes resulted in depletion of capital (p. 148); and that income alone is an adequate measure of taxpaying ability (chap. 7, iv). Again the definition of income as receipts minus operating expenses including interest (p. 179) would not conform with accounting theory or usual income tax practice. Finally, if the progressive income tax is to be employed as practically the sole method of raising school revenue

[2] The last error may possibly result from first-hand knowledge of the Illinois situation.

[3] *Cf.* brilliant arguments to the contrary by Mr. Hobson (*Taxation in the New State*, Part 1) and Professor Pigou (*A Study in Public Finance*, Part 2).

(p. 160), it is difficult to see how all taxable income may properly be treated alike in a formula for allocating ability to pay taxes among the different sections of the state (p. 190). Such a practice would imply, for example, that the taxpaying ability of one district having a single individual with a taxable income of $50,000 would be the same as another having fifty taxpayers each enjoying a taxable income of $1,000—an implication clearly contrary to the theory of progressive taxation advocated by Professor Morrison.

James W. Martin

Morrison-Bell, C. *Tariff walls: a European crusade.* (London: John Murray. 1930. Pp. xiii, 223. 7s. 6d.)

Neumark, F. *Konjunktur und Steuern.* (Bonn and Leipzig: Kurt Schroeder. 1930. Pp. 59. R.M.2.85.)

Pingree, D. *Tax delinquency in the selected counties of Oregon and Washington.* Progress report of the Forest Taxation Inquiry, no. 11. (Washington: Supt. Docs. 1930.)

Prouty, W. L., Collins, C. W., and Prouty, F. H. *Appraisers and assessors manual.* 1st ed. (New York: McGraw-Hill. 1930. Pp. ix, 500.)

Reiter, G. *A tax without a burden. Or, The individual capital augmentation tax system.* 2nd rev. ed. (Boston: Christopher Pub. House. 1930. Pp. 177. $1.50.)

Rich, W. W., compiler. *United States tariff; containing the Tariff act of 1930, with schedules of articles, rates of duty and applicable paragraphs of the act; also provisions of the act applicable to the administration of the customs laws.* (New York: Vandegrift. 1930. Pp. xviii, 419.)

Simpson, H. D. *Tax racket and tax reform in Chicago.* (Chicago: Northwestern Univ. Institute for Econ. Research. 1930. Pp. xix, 287. $2.50.)

Swischer, I. G. *A history of the tariff in the United States.* (Washington: National League of Women Voters. 1930. Pp. 19.)

Terhalle, F. *Finanzwissenschaft. Grundrisse zum Studium der Nationalökonomie,* Band 16. (Jena: Fischer. 1930. Pp. xv, 578. Rmk.26.)

Walker, M. L. *Municipal expenditures.* (Baltimore: Johns Hopkins Press. London: Oxford Univ. Press. 1930. Pp. ix, 198. $2.25.)

How much should American cities spend, and how should the amount spent be apportioned among the various public services? Dr. Walker's monograph is intended to provide a partial answer to the second of these two much neglected questions. It is attempted, with the inevitable limitations upon a pioneering effort, to develop an index of a normal or "balanced" apportionment of the city budget.

Chapter 1, "Accents in city government," shows, largely on the basis of the Census Bureau statistics, that American cities vary widely in the distribution of their expenditures among their various public services. The question is raised whether a testing of the propriety of these variations is possible. Chapter 2 presents chronologically the "Progressive criteria" of city administration, as honesty, economy, efficiency, and balance. The "Theory of expenditures" of chapter 3 ends in the acceptance of marginal utility as a criterion of public expenditures as well as individual. Chapter 4, "Grading cities," contains the meat of the treatise, in that it presents an index for grading cities according to services rendered, in objective terms, some of the elements of which are street cleanings and garbage

collections per week, percentage of population sewered, length of school term, library circulation, percentage of property destroyed by fire, persons per acre of parks and playgrounds. Some very important elements such as police and crime statistics, had to be omitted owing to the absence of comparable statistical information. The elements are tests of performance, and not of costs; and they are confessedly provisional and imperfect. The index is offered as the best available substitute for the impractical subjective individual valuation of the marginal utility theory. In chapter 5, "Factors affecting rating," are treated such factors as size, location, time, form of government, per capita wealth, which might cause legitimate variations from the "norm" in the apportionment of the "budget." The "norm" itself, in the form of a composite rating of the "best" cities, is presented in chapter 6, with the necessary reservations. Chapters 7 and 8, "Tendencies in budget distribution" and "Conclusion," respectively, introduce the practical restrictions upon the budget maker in attaining a normal "balance," and express hope for a degree of usefulness of the index.

Obvious limitations to the use of the index, even in a more perfect form, at once come to mind. Private group interests, official incapacity if not corruption, existing statutory and constitutional restrictions, rapid growth of and consequent changes in the cities, political expediency or necessity prevent the budget maker from employing such tools as he has. Local peculiarities of any one city would and should prevent its expenditures from conforming to any ideal index; but the peculiarities can be discovered and allowed for. The index itself can be improved as the required information is called into being. The problem must be attacked wherever possible. And the field covered has hitherto been so barren of tangible results that any serious contribution must be welcomed.

Jens P. Jensen

Weimer, P. H. *Die Entstehung der deutschen Lohnsteuer als Entsprechungsform zur modernen Kapitalwirtschaft.* (Bonn and Leipzig: Kurt Schroeder. 1930. Pp. 85. R.M.4.)

Wittschieben, O. *Das österreichische Besteuerungssystem.* Teil II. *Die Einzelformen der Steuern und Gebühren.* (Jena: Fischer. 1930. Pp. x, 196. Rmk.9.)

Financial statistics of cities having a population of over 30,000: 1928. (Washington: Supt. Docs. 1930. Pp. 23.)

Financial statistics of state governments: 1928. (Washington: Supt. Docs. 1930. Pp. 8.)

The fiscal problem in Missouri. (New York: National Industrial Conference Board. 1931. Pp. xvi, 359. $3.)

The government of metropolitan areas. (New York: Committee on Metropolitan Government of the National Municipal League. 1930. Pp. 403.)

This book is of primary interest to students of government and will doubtless be reviewed at length in journals of political science. It deserves attention, also, of students of economic problems, noting more particularly taxation, public utilities, transportation and the grouping of population. The volume represents an intensive investigation undertaken by Dr. Paul Studenski and his associates, over a period of four years, and made possible through a grant from the Russell Sage Foundation. It is thoroughly annotated.

Laws authorizing refunding debts of foreign governments and settlement of war claims act of 1928 with amendments. (Washington: Supt. Docs. 1930. Pp. 594. 65c.)

State and local taxation of property. (New York: National Industrial Conference Board. 1930. Pp. xii, 245. $2.50.)

Tariff and taxation. (Washington: Supt. Docs. 1930. Pp. 59. Gratis.)

Tax laws of the state of New York; provisions relating to local assessments, being the first eight articles thereof, and sections 205, 219-j and 219-l, with all amendments to the end of the legislative session of 1930. (New York: Baker Voorhis. Albany: M. Bender. 1930. Pp. 154.)

United States customs tariff, act of 1930 (effective June 18, 1930). Complete act and a special index of 20,000 individual articles, alphabetically arranged, giving specific paragraph numbers, duty rates, etc., for each article. Reprinted from the *Custom House Guide.* (New York: Custom House Guide. 1930. Pp. 585.)

Population and Migration

Porto Rico and Its Problems. By Victor S. Clark and associates. (Washington: Brookings Institution. 1930. Pp. xxxv, 707. $5.00.)

This book becomes the standard reference on Porto Rico. Its almost 750 pages gather together more information about the island than is available between the covers of any other single volume. Its analysis of the problems of a million and a half people living on an island thirty-five miles wide and a hundred miles long is exhaustive, almost at times microscopic. As in most coöperative writing, there is some repetitious discussion and some unevenness of emphasis.

Of all the major Caribbean areas none offers more perplexing questions than the island which came into the possession of the United States at the end of the Spanish American War. Here problems of public order have not been serious—they were not serious even in the Spanish régime. The ethnic composition of the population has been more favorable than in most of the West Indian areas, if prevalence of European ancestry is to be considered an advantage; for almost three-fourths of the people are listed as of white race, a proportion comparable to that of our southern Atlantic states. Public finance has been under American control. Legislation has been passed which in effect puts the island under a heavy subsidy. Expenditures for improvement of public health, for schools, for diversification of industry, for the improvement of agricultural conditions, for the building of roads have been generous. Nevertheless, after a generation of American control the problems of Porto Rico, economic rather than political, are among the most acute of the Caribbean area and by no means seem destined to early solution.

Limited resources—wealth other than agricultural is negligible—and a high birth rate, the effect of which is now more marked since measures taken to protect the public health have cut down the death rate, these are the foundation factors of Porto Rico's problems. Population crowds the food supply with the result that in spite of all the efforts of the island government and those of the United States to improve conditions, Porto Rico continues an example of the working of the Malthusian theory.

There are other problems, some of them rising out of those already mentioned. Rural living conditions are not favorable. Houses are over-crowded. Land tends to continue to be held by absentee owners though the government has tried to encourage small holdings. Employment is seasonal. Tropical and other diseases take a heavy toll in spite of laudable public health activities. There are inadequate opportunities for those whom the schools educate to use their new equipment. About a third of this volume gives an analysis of government organization and public finances; in both defects are found, especially in the purposes for which taxes are spent and public debt incurred; but the problems of Porto Rico are not primarily ones of government, obvious though the mistakes made therein are. There follow studies of various economic phases of the island's life showing the remarkable increase in agricultural production for export, organization of local trade and trade facilities, the growth of local manufactures and the efforts made to improve the character and increase the number of local crops.

The essential for bettering conditions in Porto Rico is a better standard of life for the common people; but this, it is recognized, cannot be attained so long as their number continues to increase as at present. Emigration in large numbers does not appear a promising solution. Better use of land and the encouragement of new lines of manufacture are more promising but may be only palliatives. The Porto Rican problem has become a population problem. "Education in parental responsibility provides the only remedy."

Chester Lloyd Jones

University of Wisconsin

NEW BOOKS

Kuczynski, R. R. *Birth registration and birth statistics in Canada.* (Washington: Brookings Institution. 1930. Pp. xii, 219. $3.)

The present work is a by-product of a series of studies on fecundity in different parts of the world being written by Dr. Kuczynski and being published by the Institute of Economics under the general title, *The Balance of Births and Deaths.* The author's painstaking thoroughness, the careful arrangement of the material, and the wealth of data presented make the present volume as important a contribution to demography as his thought-provoking study of fertility in Northern and Western Europe.

French Canada is notable for a continuous series of birth records over a long period of time.

In the Catholic population of French Canada fertility has reached heights paralleled in no other part of the world. Between 1665 and 1880 the birth rate in Quebec fluctuated between 45 and 62 per decade. Since then it has declined to 34. Births per 1,000 women of child-bearing age numbered 350 in 1665-67; by 1850 this rate fell below 200; in 1926-28 it was about 135. The gross reproduction rate in the middle third of the seventeenth century was more than double the highest rate recorded in Northern and Western Europe in the nineteenth century. At present the gross reproduction rate is about what it was in Germany around 1900.

The data for the English-speaking portions of Canada are inadequate. Both the birth rate and the general fertility rate were and are lower than the corresponding rates in Quebec. However, the gross reproduction rate is still considerably higher than the highest corresponding rate found in Northern and Western Europe in 1926.

Fertility varies appreciably in the eight English-speaking provinces. Where large portions of the population are of French descent and where the proportion of European immigrants is high, fertility is higher than in Ontario and the Maritime Provinces where the British element predominates. Among the latter, fertility approaches the present low level of Western and Northern Europe.

J. J. SPENGLER

PLACE, F. *Illustrations and proofs of the principle of population.* Edited by N. E. HIMES. (Boston and New York: Houghton Mifflin. 1930. Pp. 354. $4.50.)

This is an exact reproduction of Place's work which first appeared in 1822. The volume contains a valuable introduction and critical and textual notes by Professor Himes, who is preparing a complete history of the birth control movement in England. Several unpublished letters of Place on control and Coleridge's criticisms of Malthus' reviews on birth control are appended. There is no index.

Professor Himes rightly suggests that Place's efforts in founding the early birth control movement have not been adequately recognized. Place rejected both Malthus' pessimism and Godwin's extreme optimism and emphasized the greater tenability of a mid-position in the controversy in which these two writers were engaged. For Malthus' "moral restraint" Place substituted as more practicable the regulation of the size of families by employment of contraceptive measures.

Place's influence in founding the international birth control movement did not result from the publication of this work of which only about 500 copies were distributed. Rather his importance rests upon his engineering of the distribution of practical contraceptive handbills and upon his training of a small but vigorous band of disciples. He became the "mainspring" of the new movement and the direct stimulator of the publication which made contraceptive methods common knowledge.

J. J. SPENGLER

RANADIVE, B. T. *Population problem of India.* (London and New York: Longmans Green. 1930. Pp. xviii, 216. 10s. 6d.)

The argument presented in this book runs somewhat as follows. Population growth in India since British rule began has been held in check in part by such preventive factors as pre-puberty intercourse and prolonged lactation, and to a much greater extent by the positive factors of famine, epidemics such as fever, plague, and influenza, and endemic diseases such as cholera and malaria. These positive checks have operated by preventing births as well as by causing deaths, making for violent fluctuations in the birth rate. Years of low fecundity caused by the above are becoming more common and indicate an increasing maladjustment between population and means of support, the seriousness of which is also made clear by various studies of living standards. "We have multiplied to the lowest point compatible with human existence."

Taking up means for improving this situation, it is held that agricultural production cannot be expanded to keep pace with population growth, since the low quality of land not already utilized checks additions to area, while the poverty of the peasant prevents more intensive cultivation by causing the use of dung for fuel instead of manure, and the loss of land and labor due to excessive fragmentation of land holdings. Industrialization as a solution is considered to be sadly inadequate. Development in the past has been at so slow a rate that a smaller proportion of the working population is thus employed at present than in former years, throwing a greater burden on agriculture. This does not augur well for a great expansion of industry in the future. Unlike many western countries, India cannot support a large proportion of her 319,000,000 persons (in 1921) by industry, partly because of the size of the task and the dearth of accumulated capital, but also because of the impossibility of disposing of a vast quantity of goods (granting that they could be produced) to the impoverished people in the home market, or in foreign markets in competition with nations entrenched for many decades.

In conclusion, the author turns to birth control, practised so intensively as to reduce the population, as the only possible remedy. He is sceptical of its adoption by the mass of the Indian people, however, since the "squalid circumstances under which they live, and their blighted outlook on life, prevent them from exercising any foresight with regard to their future," and since their "social and religious traditions . . . will not allow of such a revolutionised outlook on life." "The absence of male issue is a social stigma; . . . a girl unmarried at puberty is a 'source of social obloquy'; sterility in a woman is a grievous crime. . . . These beliefs are held with the usual tenacity with which all orthodox superstitions, having no rational basis, are adhered to." In spite of all this, the author is "firmly convinced that [birth control] is the only method for the solution of the problem that confronts us."

The book is well worth reading by anyone interested in the population problem of India. Considerable data are presented to substantiate the argument.

P. K. Whelpton

Robinson, C. H. *Seventy birth control clinics: a survey and analysis including the general effects of control on size and quality of population.* (Baltimore: Williams & Wilkins. 1930. Pp. xx, 351.)

Shiroski, N., and others. *Population.* Harris Found. lectures on internat.

relations, 1929. (Chicago: Univ. of Chicago Press. 1930. Pp. 312. $3.)

Mexicans in California. Report of Governor C. C. Young's Mexican Fact-Finding Committee. (San Francisco: State House. 1930. Pp. 214.)

This report represents two years' work of a committee appointed in March, 1928, by Governor Young of California to ascertain the "facts relating to the industrial, social and agricultural aspects of Mexican immigration into California." A wealth of information, obtained largely through questionnaires and surveys, is presented in the text and the 84 tables and 25 charts that accompany the text. Good summaries are appended to each chapter.

Among other things the report indicates that many Mexicans enter this country illegally; that the adoption of visa requirements has cut down Mexican immigration; that, while Mexicans usually come to stay, many do not become naturalized; that in the capacity of laborers Mexicans form an integral part of California's industry; that curtailing Mexican immigration will compel changes in agriculture in California; that health conditions are low among the Mexican immigrants; and that Mexicans are not being well assimilated at present.

J. J. Spengler

Mortality statistics 1928: twenty-ninth annual report, rate table and general tables for the death registration area in continental United States, with supplemental statistics for Hawaii and the Virgin Islands. (Washington: Supt. Docs. 1930. Pp. 444. $2.)

Social Problems and Reforms

NEW BOOKS

Addams, J. *The second twenty years at Hull House, September, 1909, to September, 1929; with a record of a growing world consciousness.* (New York: Macmillan. 1930. Pp. 426. $4.)

Anthony, A. B. *Economic and social problems of the machine age.* (Los Angeles: Univ. of Southern California Press. 1930. Pp. ix, 79. $1.)

Baldwin, B. T., Fillmore, E. A. and Hadley, L. *Farm children: an investigation of rural child life in selected areas of Iowa.* (New York: Appleton. 1930. Pp. xxii, 337. $4.)

This is the culmination of one of the projects of the Iowa Child Welfare Research Station, initiated by its late director, Bird T. Baldwin. The project was undertaken as a "beginning toward a better understanding of children in rural homes and communities." The authors conclude that "the individuality of communities, parents and children is one of the main factors shown by this study of rural children in Iowa." The report is a careful description, expressed in numerical measurements when possible, of the children of two Iowa rural communities, together with faithful accounts of environmental factors which appear to have an influence upon the development of the children of the areas. Certain sections are rather tediously long and are marred by annoying repetition. The work lacks a certain smoothness and finish because various chapters were prepared by different workers, and the authors have been unable to eliminate all of the

consequent peculiarities of style and to weld the report into a unified whole. The parallelism between the two communities is not consistently carried through, and some irrelevant comparisons of rural and urban children are made. The latter are unfortunate as they represent a deviation from the announced objective. These faults are minor, however, and the report should prove enlightening to those who are accustomed to think of the rural population as a rather homogeneous group, with similar ideals and impelled by common motives. Significant differences existing between two apparently similar communities, and the reasons for those differences, are clearly developed.

A. G. Black

Best, H. *Crime and the criminal law in the United States.* (New York: Macmillan. 1930. Pp. xvii, 615. $6.50.)

Brandeis, L. D. *The social and economic views of Mr. Justice Brandeis.* Edited by A. Lief. (New York: Vanguard. 1930. Pp. 440. $4.50.)

Brown, E. F., and others, editors. *City noise: the report of the commission appointed by Dr. Shirley W. Wynne, Commissioner of Health, to study noise in New York City and to develop means of abating it.* (New York: Noise Abatement Commission, Dept. of Health. Pp. 320.)

Brunner, E. de S. *Industrial village churches.* (New York: Institute of Social and Religious Research. 1930. Pp. xii, 193. $1.50.)

Clark, M. A. *Recording and reporting for child guidance clinics.* (New York: Commonwealth Fund Division of Pubs., 41 E. 57th St. Pp. 148. $2.)

Cooley, C. H. *Sociological theory and social research.* (New York: Holt. 1930. Pp. 358. $3.)

Eaton, A. and Harrison, S. M. *A bibliography of social surveys. Reports of fact-finding studies made as a basis for social action, arranged by subjects and localities. Reports to January 1, 1928.* (New York: Russell Sage Foundation. 1930. Pp. xlviii, 467. $3.50.)

This volume should prove of value, not only to the historian of our social life, but to the student of social problems who wishes to assemble data in his special field. It lists 154 general social surveys and 2,621 surveys in specialized fields. The latter represent 125 separate groupings, divided as follows: schools and education, 625; health and sanitation, 469; industrial conditions, 296; city and regional planning, 155; delinquency and correction, 152; and housing, 112. A few of the surveys relate to foreign countries. The bibliographical entries give the agencies conducting the survey, the publisher, date, price, and statement as to whether the publication is out of print or not. The geographical index covers over 100 pages.

Frederick, J. G. *Humanism as a way of life.* (New York: Business Bourse. Pp. 351. $3.)

Gow, C. R. *Foundations for human engineering.* Edited by F. A. Magoun. (New York: Macmillan. Pp. 239. $1.60.)

Lectures in the course of humanics, which is given at the Massachusetts Institute of Technology to juniors and seniors to instruct the students in the fundamentals of human relationship.

Hall, F. S. and Ellis, M. B., editors. *Social work year book, 1929.* (New York: Russell Sage Foundation. 1930. Pp. 600. $4.)

This book represents the first of a series of biennial publications cal-

culated to record organized efforts in the country for dealing with social problems. More than 200 topics are discussed. These are treated alphabetically and are therefore self-indexing. The table of contents consists of a classified list of these articles. There are twelve groups as follows: families or adults; children; handicapped; miscellaneous classes; mental hygiene; health industries; crime; recreation; community organizations; church social work, and miscellaneous topics. The editors have been assisted by nearly 200 contributors, each of these an expert in his line. As far as possible each article has been handled under the following sections: history and present status; training requirements and opportunities, developments and events, 1929; and legislation, 1929.

The editor recognizes the difficulty experienced in collecting the list of laws passed in 1929, as well as the reports from community chests and from public boards of welfare, health, education and labor. As a consequence, some of the information is incomplete or premature. . . . For example, on page 201 reference is made to a California law or constitutional amendment exempting certain non-profit hospitals from taxation. This amendment needed to be ratified to become operative but instead has been defeated by the people so that the law referred to does not actually exist. Such oversights are no doubt rare and therefore the book becomes a most valuable compendium for the social worker.

Part II consists of brief descriptions of more than 400 public and private national agencies engaged in the promotion of some phase of social work. However agencies "whose purpose is to promote peace, international good will, temperance, prohibition, or education other than special education for negroes" are not listed. This list is also arranged alphabetically and a final section classifies the agencies according to topics.

GEORGE B. MANGOLD

HEWES, A. *The contribution of economics to social work.* (New York: Columbia University Press, for the N.Y. School of Social Work. 1930. Pp. ix, 135. $2.)

This little book will be useful largely to the extent to which it impresses social workers with the necessity of understanding the fundamentals of economics, and it is obviously not intended for those already acquainted with its principles. One of the great weaknesses of social work has been due to the ignorance of social service organizations of the economic backgrounds and economic processes on which social work should be built. If the book shakes individuals out of the complacent smugness characteristic of much social work, it will have performed a signal service. Among the topics discussed are: measurement of economic data; what can a community afford; bargaining power of groups and individuals; economic myths and the economist's outlook.

The book hardly lives up to its title; and myths such as those of the Economic Man, Laissez Faire, Wages Fund, and Iron Law of Wages are discussed as though their mythical character were a recent discovery. The author leans too heavily on a single writer in her statements of the effect of machinery, and leaves us quite confused and uncertain in respect to the causes of unemployment.

Some emphasis is given in the final pages to the necessity of making social workers realize that it is necessary to change the conditions out of

which particular maladjustments grow. This view needs to be constantly reiterated, although it has been expressed many a time among the last twenty-five years.

GEORGE B. MANGOLD

HOFFER, C. R. *Introduction to rural sociology.* (New York: Richard E. Smith. Pp. 427. $2.50.)

HUSTON, W. *Social welfare laws of the forty-eight states.* (Des Moines: Wendel Huston Co. 1930.)

JETER, H. R. and MCMILLEN, A. W. *Registration of social statistics for the year 1928: a report submitted to the Joint Committee of the Association of Community Chests and Councils and the Local Community Research Committee of the University of Chicago.* (Chicago: Univ. of Chicago. 1930. Pp. xiii, 956.)

MILLER, S., JR. and FLETCHER, J. F. *The church and industry.* (New York: Longmans Green. 1930. Pp. xiii, 273. $2.50.)

PEEL, G. *The economic war.* (New York: Macmillan. 1930. Pp. 291. $4.25.)

RICE, S. A., editor. *Methods in social science: a case book compiled under the direction of the Committee on Scientific Method in the Social Sciences of the Social Science Research Council.* (Chicago: Univ. of Chicago Press. 1931. Pp. xiii, 822. $4.50.)

SCHIAVO, G. *What crime statistics show about Italians.* Italian Hist. Soc. pamph. no. 9. (New York: Italian Hist. Soc., 113 W. 42nd St. Pp. 30. 5c.)

SELIGMAN, E. R. A. and JOHNSON, A., editors. *Encyclopaedia of the social sciences.* Vol. II. *Alliance—brigandage.* (New York: Macmillan. 1930. Pp. xxvi, 696.)

SELVIDGE, R. W. and FRYKLUND, V. C. *Principles of trade and industrial teaching.* (Peoria, Ill.: Manual Arts Press. 1930. Pp. 219. $2.75.)

SOROKIN, P. A., ZIMMERMAN, C. C. and GALPIN, C. J., editors. *A systematic source book in rural sociology.* (Minneapolis: Univ. of Minnesota Press. 1930. Pp. xx, 645.)

SPAHR, W. E. and SWENSON, R. J. *Methods and status of scientific research, with particular application to the social sciences.* (New York: Harper. 1930. Pp. xxi, 533. $4.)

Designed for the beginner in research, particularly college seniors and those expecting to engage in research leading to the master and doctorate degrees. Attempts to provide "the three most valuable tools necessary to successful research," (1) the principles of critical scholarship which appear to be most generally acceptable among the leading scholars of the world; (2) the proper technique to be used in applying the principles of scientific method; (3) a general knowledge of the status of research in the social science field. The book is eminently practical, with convenient summarized information as to the use of libraries, the service, the questionnaire, information as to notation, etc.

STRONG, M. K. *Public welfare administration in Canada.* (Chicago: Univ. of Chicago Press. 1930. Pp. 247. $3.)

TUGWELL, R. G., MUNRO, T. and STRYKER, R. E. *American economic life and the means of its improvement.* 3rd ed. (New York: Harcourt Brace. 1930. Pp. ix, 787.)

WEBER, M. *The Protestant ethic and the spirit of capitalism.* Translated by T. PARSONS. (New York: Scribner's. 1930. Pp. 307. $3.)

WHITE, L. D., editor. *The new social sciences.* (Chicago: Univ. of Chicago Press. 1930. Pp. ix, 132. $1.50.)

Contains addresses delivered at the dedication of the Social Science Building at the University of Chicago, December 16 and 17, 1929.

WILLIAMS, P. and CROXTON, F. E. *Corporation contributions to organized community welfare services.* (New York: National Bureau of Economic Research. 1930. Pp. 347. $3.)

The Association of Community Chests and Councils, desirous of obtaining as complete and exact information as possible concerning the contributions to organized charity by corporations in cities where community chests exist, arranged with the National Bureau of Economic Research to make the necessary study. Community chests in 129 cities are included, although for only 14 of this number were annual figures available as far back as 1920. Of the amount raised in 1929 by the chests in all of the cities, $12,954,769, representing 22 per cent of the total, was contributed by 33,977 corporations. Substantial variation in the percentage of corporation contributions of course occurs from city to city; contributions from this source fall below 10 per cent in 17 cities and rise above 50 per cent in 3—Pontiac, Michigan; Rochester, New Hampshire, and Rome, New York.

More significant are the differences among the main groups of industries. The authors believe that, in general, corporation managements contribute to local charities on the basis of their analysis of the benefits to be derived by stockholders. This resolves largely into a matter of good-will: managements attempt to gauge the amount of good-will to be anticipated from employees or consumers in consequence of the sums contributed. Thus, corporations engaged in manufacturing and in retail and wholesale merchandising stand high, accounting for 43.5 and 31.5 per cent, respectively, of the approximately 13 million dollars from all corporations in 1929; the latter percentage comprises 4.4 from retail chains and 26.7 from retail and wholesale trade other than chain stores. However, it appears that nice calculations of good-will benefits to the corporation do not entirely explain outstanding differences. For example, of the 832 railroad corporations in the country, contributions of $28,550 were made in 1929 by only 13 corporations, and this represented 0.1 per cent of total corporate contributions that year. The authors ascribe this in part to the fact that the railroads are not usually localized and in part to the circumstance that during the war years, when corporate contribution to charity first received their main impetus, the railroads missed this educational experience because they were under federal operation. Similarly, insurance companies, banks and chain stores do not rank high in their relative contributions, although the last two have shown substantial increases in recent years. In the case of public utilities other than railroads, their relationship to the local areas which they serve impels them to contribute fairly generously to community chests. It is stated that "the increase in amounts received from public utility corporations in 1929 compared with 1928 is marked," and that the increase "may be taken as reflecting the new attitude of such corporations toward the public." In this connection it would have been in order to remind the reader that the sudden higher valuation placed by the utilities

upon public good-will may possibly have been due to a desire to counteract any ill-will that might have arisen as a result of disclosures by the Federal Trade Commission. Such considerations, however, were apparently regarded as outside the proper scope of this study. Likewise, examination of possible alternatives (in the form of such devices as public health insurance, unemployment insurance and old age pensions) to the system of private doles embodied in the community chest evidently were not thought of as falling within the authors' subject-matter.

The work will be valuable in calling attention to some of the weak links in the chain of corporation contributions. Through access to information permitting exact comparisons among industries and cities, community chest officials in all sections of the country should be stimulated to devise ways and means of overcoming "sales resistance" to pleas for the support of charity. The content of the book is characterized by the superior workmanship one has come to expect of the National Bureau's publications. The Bureau's customary reliance on statistical method marks the study; there are 68 tables in the text and the appendix of 111 pages is largely comprised of additional tables.

LYLE W. COOPER

WISNER, E. *Public welfare administration in Louisiana.* Soc. serv. monographs no. 11. (Chicago: Univ. of Chicago Press. 1930. Pp. 256. $3.)

WISSLER, A. *Die Opiumfrage. Eine Studie zur weltwirtschaftlichen und weltpolitischen Lage der Gegenwart.* Probleme der Weltwirtschaft, Band 52. (Jena: Fischer. 1930. Pp. xxiii, 278. Rmk. 12.)

WRIGHT, J. C., editor. *Foundations of industrial education.* (New York: Wiley. 1930. Pp. 492. $3.)

YOUNG, K. *Social psychology: an analysis of social behavior.* (New York: Knopf. 1930. Pp. xvii, 674, xxi.)

ZINK, H. *City bosses in the United States: a study of twenty municipal bosses.* (Durham: Duke Univ. Press. 1930. Pp. xi, 371. $4.)

Children's Bureau and other publications relating to children. (Washington: Supt. Docs. 1930. Pp. 17. Gratis.)

Prohibition enforcement: its effect on courts and prisons. (Washington: Assoc. against the Prohibition Amendment. 1930. Pp. 32.)

Insurance and Pensions

NEW BOOKS

BALDWIN, W. E., editor. *Kentucky insurance laws, annotated, 1930, containing all insurance laws in force to January 1, 1932.* (Cleveland: Baldwin Law Pub. Co. 1930. Pp. 110.)

DU BOIS, F. R. *The insurance broker: his legal and practical position, his obligations to clients and insurance companies.* Howe readings on insur., no. 12. (New York: Insurance Soc. of N.Y. 1930.)

JANNOTT, K. *Das Versicherungswesen in Volks und Weltwirtschaft. Vortrag, gehalten am 5. Juni 1930 im Wissenschaftlichen Klub des Instituts für Weltwirtschaft und Seeverkehr an der Universität Kiel.* (Jena: Fischer. Pp. 40. Rmk. 1.80.)

KAHLER, C. M. *Business interruption insurance. A survey of the coverage*

of business interruption losses caused by fire and allied hazards other than marine. A thesis. (Philadelphia: Univ. of Pennsylvania Press. 1930. Pp. iv, 244.)

Mudgett, B. D., and others. *Insurance.* (New York: Alexander Hamilton Inst. 1930. Pp. xx, 337.)

Scully, C. A. and Ganse, F. W. *Business life insurance trusts.* (New York and London: Appleton. 1930. Pp. xv, 277.)

Smith, H. A. *Economy in public school fire insurance.* Contribs. to educ. no. 428. (New York: Teachers Coll., Columbia Univ. 1930. Pp. vi, 113.)

Weddigen, W. *Grundfragen der Sozialversicherungsreform. Ein Beitrag zur Theorie und Technik der Sozialversicherung.* (Jena: Fischer. 1930. Pp. x, 118. Rmk. 6.)

The Association of Life Insurance Presidents: proceedings of the twenty-fourth annual convention held in New York, December 11 and 12, 1930. (New York: Assoc. of Life Insur. Presidents, 165 Broadway. 1930. Pp. 280.)

Company plans for unemployment insurance. (Princeton: Princeton Univ. Industrial Relations Section. 1931. Pp. 15, mimeographed.)

Fire insurance laws, taxes and fees, containing a digest of the statutory requirements in the United States and Canada relating to fire insurance companies and agents, with many quotations from the statutes; also a compilation of county and municipal taxes and fees. 30th annual ed., rev. to Sept. 1, 1930. (New York: Spectator Co. 1930. Pp. 748.)

Federation of mutual fire insurance companies: proceedings and papers of the third annual underwriters' conference held in Cleveland, June 9-10, 1930. (Chicago: Aggerbeck Co. 1930. Pp. 176.)

Socialism and Co-operative Enterprises

NEW BOOKS

Bukharin, N. *Imperialism and world economy.* (New York: International Pubs. 1929. Pp. 173. $2.)

This essay, which has recently appeared in an English translation, was written in 1915 and first published in Russian in 1917. Its emotional background is best indicated by the author, who says that "the manuscript was written at a time when Socialism, crucified by capital and the 'Socialist' traitors, was suffering the greatest possible humiliations." In his preface Bukharin said that he had not furnished his essay with fresh statistical material.

There is a brief introduction by Lenin. This introduction, originally (December, 1915) signed V. Ilyin and lost during the wanderings of the manuscript in Russia, was subsequently found and first published in *Pravda,* January 21, 1927. Lenin asserts that the "scientific significance of Bukharin's work consists particularly in this, that he examines the fundamental facts of world economy relating to imperialism as a whole, as a definite stage in the growth of most highly developed capitalism."

Bukharin's essay is divided into four parts: (1) World economy and the process of internationalization of capital; (2) World economy and

the process of nationalization of capital; (3) Imperialism as the reproduction of capitalist competition on a larger scale; and (4) The future of imperialism and world economy. It is perhaps unnecessary to say that the treatment is, so far as I can judge, in the orthodox Marxist manner, at least as the Bolshevists understand Marx. Orthodoxy was highly valued by Lenin, who refers in his introduction to one of Kautsky's pamphlets published in 1909 *(Der Weg zur Macht)* "in which he drew sound conclusions as a Marxist for the last time."

MAURICE G. SMITH

CHANG, S. H. M. *The Marxian theory of the state.* (Chester, Pa.: John Spencer, Inc. 1930. Pp. 200. $2.50.)

LAIDLER, H. W. *The new capitalism and the socialist.* Pub. no. 21. (New York: League for Industrial Democracy, 112 E. 19th St. 1931. Pp. 47. 10c.)

MARKHAM, S. F. *A history of socialism.* (London: A. & C. Black. 7s. 6d.)

RYAZANOFF, D. *The Communist Manifesto of Karl Marx and Friedrich Engels.* (New York: International Pubs. 1930. Pp. xi, 365. $3.75.)

Because the Communist Manifesto appeared more than three-quarters of a century ago, it is based on circumstances and filled with allusions that have become relatively unfamiliar to the modern reader. For this reason Marxians have felt that it needs a commentary.

The function of such a work, as the author conceives it, should be to give a history of the social and revolutionary movements out of which the Manifesto came, to reveal the genesis of the basic ideas it contains and show their relationship to the history of thought, to indicate, also, the degree to which its contentions have been vindicated by history. Obviously such a project is an ambitious undertaking.

The text of the Manifesto which is used is a recent translation from the German made in 1928 for Martin Lawrence. The body of the comment itself is in part the work of the author's own pen, in part it consists of excerpts from the other writings of Marx and Engels, carefully selected, organized and annotated. Of these two types of notes the former will doubtless bring the greater satisfaction to the average reader. They are scholarly and well organized, and the relationship between the matter at issue and the explanatory note is very evident. With those notes which are largely excerpts the author has not been so successful. The mass of these have come from the first volume of *Capital* and *The Poverty of Philosophy* by Marx and *The Condition of the Working Class in England* by Engels. It is the amplifications from Marx that have created the greatest difficulty. However skillfully it may be done, it seems that explaining Marx by Marx can scarcely escape at times the appearance of confounding existing confusion and creating the need of a commentator for the commentary.

As an introduction the author contributes in an interesting fashion to Engels' account of the formation of the Communist League. The appendix includes the prefaces that have been written to the various editions of the Manifesto, Engels' *Principles of Communism,* the trial number of the *Communist Journal,* the Constitution of the Communist League, etc.

While Professor Ryazanoff himself modestly insists that the present volume is not that commentary which should appear, it needs no apology. Never so brief as to be trivial, rarely is it so cumbersome as to be confusing.

Without doubt it is the best that has yet been written; and it is fortunate that it has been made available for English-speaking students.

W. A. McConagha

Statistics and Its Methods

Economic Rhythm. By Ernst Wagemann. Translated by D. H. Blelloch. (New York and London: McGraw-Hill. 1930. Pp. xv, 287. $3.00.)

This work is a translation of Dr. Ernst Wagemann's *Konjunkturlehre*. The qualifications of the author to engage in this project are partially indicated in a courteous prefatory note by Wesley C. Mitchell. The author, a university professor, has been president of the Imperial Statistical Office and director of the Institut für Konjunkturforschung. He has therefore had ample opportunities to study the procedure of practical forecasting as well as to familiarize himself with theoretical explanations of cyclical movements in business.

Throughout the exposition there is revealed a sharp impatience with static, synthetically derived, hypotheses. This impatience is due perhaps not so much to the author's opinion that truth cannot be disclosed by deductive analysis as to the urge to formulate conclusions in a language adapted to practical utilization. Then also the restrictions of a theoretical system must not prohibit the inductive search for useful correlations and sequences.

But the work of any large statistical organization must be based on some systematic generalizations if for no other reason than to suggest research possibilities and appropriate fields of examination. Theoretical guidance cannot be totally discarded, no matter how zealous the efforts in that direction. What Dr. Wagemann really insists upon is that the theoretical framework be broad enough to be comprehensively suggestive. Accordingly, in the early chapters of the book, we are presented with two concepts of economic hygiene, the one having to do with the circular flow of goods, the other with the circular flow of money. Herein we learn the economic adjustments which in dynamic fashion tend toward cyclical business improvement or toward cyclical reaction. As would be expected, this schemology is so broad as not to interfere greatly with any statistical treatment of available materials which might otherwise be conducted. On the other hand, however, the reader gains little insight of cyclical processes except with respect to minute aspects thereof. Perhaps, after all, this is better than to learn so much that might be true, but which in reality is not.

American readers will be gratified to note the considerable degree of attention devoted to the well-known forecasting services of this country.

But, while admitting the scientific contributions of such organizations as the Harvard Committee, Dr. Wagemann concludes that the "great plural-curve barometers" have not realized the expected results. The reviewer wonders here if the author has not paid too much attention to the unique contributions of these services. There is much in the Harvard Service besides the reading of the index chart, and all the conclusions of the Babson Service are not based on the deviations from the XY line. Scarcely any of our large statistical organizations are practically debarred by theoretical predilections from engaging in the type of investigations which the German Institute is promoting.

But all this does not mean that American students are not deeply indebted to Dr. Wagemann for this instructive exposition of the methods employed by one foreign organization to depict and predict business cycle phenomena. This work will be of interest to American readers, not because novel methods are employed or unique theories developed, but because of the light it throws upon the trend abroad toward a more inductive type of investigation.

Harold L. Reed

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Index Numbers Elucidated. By Willford I. King. (New York: Longmans Green. 1930. Pp. xx, 226.)

The purpose of this book, as stated by the author in the opening paragraph of the introductory chapter, is "to dissipate, by the application of simple logic and careful reasoning, the mathematical fog which, almost from the beginning, has enveloped the science of index numbers." This sentence contains a challenge to the so-called mathematical statistician, who devotes nearly all of his discussion of index numbers to a consideration of the various algebraic formulæ in an effort to discover the "ideal" one. However, the book is not entirely critical. In fact it may be said to constitute a reconsideration of the whole problem of index numbers from the pragmatic point of view.

Dr. King's definition of index numbers is very interesting. He distinguishes between relatives based upon complete data and relatives based upon sample data. The latter kind of relatives are index numbers. The word "index," he argues, means an indicator or something which represents something else. Hence, the term "index number" implies "an agent and not a principal." Accordingly, "index numbers may be defined as relatives derived by some sort of an averaging process from sample data and intended for use either as indicators of the relative sizes of different groups of items or as indicators of changes occurring in aggregates during the passage of specified intervals of time" (p. 47). Of course, it is best to work with complete data in computing relatives;

but, if complete data are not obtainable or are too expensive to collect, one must be satisfied with sample data and compute index numbers. As the size of the sample increases, the index numbers will approach the relatives of the complete data as limits. A consideration of index numbers, therefore, leads to the problem of sampling; and, as a result, a whole chapter is devoted to the process of sampling as applied to index numbers.

Much space is devoted throughout the book to the question, "Which is the correct mathematical formula to use in constructing relatives based upon complete data or index numbers?" Dr. King says that this depends entirely upon the question which the statistician desires to be answered. Once this question is formulated definitely, the correct formula to be used becomes obvious. Moreover, as soon as the question is changed, the formula also has to be modified. "The truth is," says the author, "that the nature of the question asked determines absolutely the mathematical procedure which must be used in arriving at the answer, in other words, no essential change in the method of solution is permissible except when the question to be answered changes" (p. 26). One may prepare an infinite number of questions, and each one will require a different formula. "To seek for a general formula that will answer all types of questions is, then, evidently an absurd procedure" (p. 53). This is Dr. King's reply to those who advocate an "ideal-formula." To combine several formulæ or to average them in order to try to answer all questions, he declares, produces only a hodge-podge. There is no "best" formula, as each formula is "best" to the question it attempts to answer. This means that all the tests used to determine the extent of bias in index numbers are unnecessary, as the correctness of the formula can be determined simply by an application of the "ordinary rules of logic."

The book also contains lengthy and illuminating discussions of such topics as the difference in results obtained by the average-of-relatives method and the method of aggregates, "chain index numbers," the problem of bias in averages as applied to index numbers, and the construction of a general purpose index number to measure the purchasing power of money. Lastly, there is presented a large amount of illustrative material, based upon hypothetical and actual data, which is used in testing the various index number formulæ.

There are many who will not agree with the views expressed by Dr. King in this book. However, no one can deny that he has thrown considerable new light on the subject of index numbers. He has also shown that the problem is by no means a closed one, and that further experimentation will have to be done before any final decision can be reached on various points.

The book is written in a very clear style. It contains numerous suggestions of practical value to the student of index numbers.

JACOB PERLMAN

University of North Dakota

NEW BOOKS

COX, G. V. *An appraisal of American business forecasts.* Rev. ed. (Chicago: Univ. of Chicago School of Commerce and Admin. 1930. Pp. 93. $1.)

HIESS, F. *Methodik der Volkszählungen.* (Jena: Fischer. 1931. Pp. xii, 242. Rmk. 15.)

KUZNETS, S. *Wesen und Bedeutung des Trends. Zur Theorie der säkularen Bewegung.* (Bonn and Leipzig: Kurt Schroeder. 1930. Pp. 51. R.M. 2.50.)

MARCH, L. *Les principes de la méthode statistique, avec quelques applications aux sciences naturelles et à la science des affaires.* (Paris: Felix Alcan. 1930. Pp. xi, 807. 125fr.)

MUDGETT, B. D. *Statistical tables and graphs.* (Boston: Houghton Mifflin. 1930. Pp. viii, 194.)

There is a growing realization that graphs and tables have a function to perform in their own right in statistical methods. From this, Mudgett's book takes its cue. Here is gathered in a concise, clear, and simple, but scholarly work, our fundamental knowledge of statistical tables and graphs. Similar material on tables has heretofore been readily available only in the more restricted discussion of Jerome's and Secrist's texts. Prior discussion of charts has been either quite detailed or rather cursory.

The emphatic point of view taken by the author is that the purpose of statistical tables and graphs is to present relationships among statistical facts. There is a wide use of our knowledge of statistical methods and statistical philosophy *as tools* in understanding tables and graphs, very clearly a reversal of customary habits of thought. There is a healthy emphasis upon experiment to determine the effectiveness of different methods of presentation.

The failure to discuss or even mention computation tables seems to be an omission. One finds some wavering between the use of concrete illustration as a type and discussion of the particularities of the illustration. The subtlety of Mudgett's magnitude and frequency distinction seems out of proportion to the simplicity of the book as a whole. There are certain minor inaccuracies. On page 25, two columns on a tabulating card are said to be sufficient for thirty items. Chart 31, page 137, a redraft of Chart 32, errs in having an ambiguous time scale.

ELMER C. BRATT

PETER, H. *Grenzen der Statistik in der Konjunkturforschung. Ein Beitrag zur Kritik der Wirtschaftsprognose.* (Bonn and Leipzig: Kurt Schroeder. 1930. Pp. 73. R.M.3.60.)

PRIBRAM, K. *Die städtische Grundrente im Konjunkturverlauf.* (Bonn and Leipzig: Kurt Schroeder. 1930. Pp. 14. R.M.1.)

RICE, S. A., editor. *Statistics in social studies.* (Philadelphia: Univ. of Pennsylvania Press. 1930. Pp. xii, 222. $3.)

The aim of this collection is to "exhibit the nature of the problems that are encountered when the methods of statistics are applied to social and sociological studies." The following is a list of titles with authors: "The historico-statistical approach to social studies," by Stuart A. Rice, University of Pennsylvania; "Statistical studies of marriage and the family," by William F. Ogburn, University of Chicago; "Statistical studies of health and medical care," by Hugh Carter, University of Pennsylvania; "Statistical studies of dependency," by Ralph G. Hurlin, Russell Sage Foundation; "Statistical studies of race relations," by Donald Young, University of Pennsylvania; "Statistical studies of crime and the administration of justice," by C. E. Gehlke, Western Reserve University; "The beginnings of judicial statistics," by L. C. Marshall, Institute of Law, Johns Hopkins University; "Prohibition: statistical studies of enforcement and social effects," by John C. Gebhart, Association Against the Prohibition Amendment: "Fallacies in prohibition statistics," by Herman Feldman, Dartmouth College; "A critical examination of certain prohibition statistics," by Irving Fisher, Yale University; "Statistical studies of social attitudes and public opinion," by Stuart A. Rice, University of Pennsylvania; "Commentary," by L. L. Thurstone, University of Chicago; "Statistical studies of personality and personality maladjustment," by Clifford Kirkpatrick, University of Minnesota.

SUTCLIFFE, W. G. *Statistics for the business man.* (New York: Harper. 1930. Pp. ix, 243. $4.)

The author, who wrote *Elementary Statistical Methods* in 1925, in this volume treats of the application of statistics to business problems. Some attention is given to graphic methods; and among the topics discussed are: the need of inventory control; budgeting; market analysis; financial statements; determination of seasonality in business; business trends, and cyclical movements. The book is of interest in showing how statistical methods can be applied to a group of coördinated problems.

UNAKER, R. S. M. *Correlation between weather and crops, with special reference to Punjab wheat.* Memoirs of the Indian Meteorological Dept., vol. xxv, part iv. (Calcutta: H. M. Stationery Office. 1929. Pp. 9. Rs.1.)

VINCI, F. *Introduzione al metodo statistico.* (Padua: Antonio Milani. 1930. Pp. viii, 191. L.25.)

This volume represents the material given to students at the University of Bologna in the academic year 1929-30. The author divides statistical work into three general categories (p. 7): (1) methods of collecting, representing, and analyzing mass observations; (2) theoretical schemes of analysis for mass observations; and (3) development of relations between groups of phenomena. The volume is restricted to the first of these divisions which the author deems sufficient for understanding ordinary work in statistics. The first two chapters consider introductory material but include an excellent argument for statistics as a special division of logic (p. 10). The author considers statistical laws as deductions from statistical work which "aid in the solution of the concrete problems of life." The two chapters on tabulation and graphic representation contain the usual textbook material. The last two chapters on "Representative constants of the observations" and "Applications of these functions to statistical data" comprise 60 per cent of the volume. They present the classical mathema-

tical theory behind each of the computed constants which includes the simpler items of averages, dispersion, curve fitting, etc. There is no discussion of index numbers nor of correlation. An interesting method of successive approximations for regular and irregular curves is given on page 140. There is no discussion of static and dynamic series, and no distinction is maintained at any point which would remedy the differences between the probabilities of the two types of series. The book definitely indicates the greater degree of mathematics contained in statistical work abroad as compared to elementary courses in this country.

FLOYD F. BURTCHETT

WARDWELL, C. A. R. *Business economics and statistics: statistics and the business cycle.* (Philadelphia: LaFayette Institute. 1930. Pp. 47.)

Index-numbers of prices of agricultural products and other price-indices of interest to the farmer (methodological data and tables). (Rome: Istituto Poligrafico dello Stato. 1930. Pp. xxiv, 120.)

DOCUMENTS, REPORTS, AND LEGISLATION

Industries and Commerce

In the series of Trade Information Bulletins published by the Department of Commerce have appeared: No. 729, *The Brazilian Market for Belting*, by R. E. Cahn (pp. 11, 10c.); No. 730, *British Market for Domestic Electrical Appliances*, by R. S. Charles (pp. 17, 10c.); No. 731, *American Direct Investments in Foreign Countries*, by P. D. Dickens (pp. 57, 10c.); No. 732, *Leather Industry and Trade of Czechoslovakia*, by Julius Schnitzer (pp. 24, 10c.); No. 733, *Motor Roads in Africa (except Union of South Africa)*, compiled by Irving Freidson (pp. 47, 10c.); No. 734, *Markets for Motor Boats, Marine Engines, and Equipment in Canada, Latin America, Oceania, and Asia* (pp. 44, 10c.); No. 735, *Markets for Motor Boats, Marine Engines, and Equipment in Europe and Africa* (pp. 38, 10c.); No. 736, *The Belgian-Luxemburg Iron and Steel Industry*, by A. E. Burrows (pp. 19, 10c.); No. 737, *Fresh Fruit Industry of Union of South Africa*, by E. B. Lawson (pp. 31, 10c.); No. 738, *Industrial Machinery Market in Siam* (pp. 36, 10c.).

Bulletin No. 731, *American Direct Investments in Foreign Countries*, is of special interest. It describes the methods and results of the investigation begun in 1921, made possible by the coöperation of about 1,750 American corporations and business men. The direct foreign investments of American corporations and business men was about $7,478,000,000 at the end of 1929. This is nearly half of the total private long-term American investments abroad. The largest investment is in Canada, nearly $2,000,000,000; South America is next in value. American investments in manufacturing abroad amount to about $1,535,000,000.

In the Trade Promotion Series have appeared: No. 100, *Travel Routes and Costs in Latin America* (pp. 82, 15c.); No. 102, *Handbook of Foreign Currency and Exchange*, by J. R. Mood (pp. 189, 30c.); No. 103, *International Trade in Leather*, by J. Schnitzer (pp. 266, 45c.); No. 104, *Handbook on American Underwriting of Foreign Securities*, by R. A. Young (pp. 166, 25c.); No. 106, *The Automotive Market in Brazil*, by H. H. Tewksbury (pp. 129, 25c.); No. 107, *The Automotive Market in Chile*, by H. H. Tewksbury (pp. 48, 15c.); No. 108, *Motor Vehicle Regulations and Taxation in Foreign Countries* (pp. 93, 15c.); No. 109, *Radio Markets of the World, 1930*, by L. D. Batson (pp. 110, 20c.); No. 110, *The World's Exports of Coffee*, by M. L. Bynum (pp. 41, 10c.); No. 113, *The Promotion of Tourist Travel by Foreign Countries*, by H. M. Bratter (pp. 66, 10c.).

Bulletin No. 102, *Handbook of Foreign Currency and Exchange*, covers 115 countries and provides a brief history of world currency conditions and recent legislation with average exchange rates available since 1900.

Bulletin 104, *Handbook on American Underwriting of Foreign Securities*, covers the sixteen-year period, 1914-1929, during which 1,962 foreign security issues were publicly offered to American investors. Full details are given in regard to the nature of foreign borrowings in the United States.

The Bureau of the Census is distributing preliminary reports of the *1930 Census of Distribution*, each individual report relating to the retail trade in a given city.

The Bureau of Business Research of Ohio State University has issued *Industrial and Commercial Ohio Yearbook, 1930* (Columbus, 1930, pp. 154, $3.00). This brings up to date industrial payroll data with information bearing on Ohio as a distribution area.

Statistical Bulletin No. 31 of the Federal Department of Agriculture deals with *Wheat Futures: Volume of Trading, Open Commitments and Prices from January 3, 1921, to December 31, 1929* (November, 1930, pp. 211, 35c.).

The First Annual Report of the Federal Farm Board for the Year Ending June 30, 1930, summarizes the development of coöperative marketing associations and describes the control measures affecting wheat, cotton and butter (Washington, 1930, pp. 75).

In the series of *Commodity Prices in Their Relation to Transportation Costs* the Bureau of Railway Economics has issued Bulletin No. 40 relating to *Wheat* (Washington, December, 1930, pp. 19). The bulletin concludes that "there is no definite relationship between freight rates on wheat and the prices paid to the farmer; that is, rate and price differentials as between different points do not correspond."

The Bureau of Agricultural Economics of the federal Department of Agriculture has issued a preliminary report on *Staple Length of Texas Cotton, Crops of 1928 and 1929* (Washington, July, 1930, pp. 14).

The agricultural economics bibliography No. 11 (revised 1930) is a selected list of *Economic Periodicals of Foreign Countries Published in the English Language* (Washington, Bureau of Agricultural Economics, pp. 28).

Miscellaneous Publication No. 97 of the federal Department of Agriculture deals with *Land Utilization and the Farm Problem,* prepared by L. C. Gray and O. E. Baker (Washington, November, 1930, pp. 54). The object of the inquiry is to provide information which will make for more effective use of land resources in order to assist in the solution of the farm problem. The central theme is overproduction and maladjustment in production. There is a liberal supply of maps and charts.

The Saint Lawrence Power Development Commission appointed by the Governor of the State of New York has made its report under date of January 15, 1931 (Albany, pp. 28).

Labor

The federal Bureau of Labor Statistics has issued the following bulletins:

No. 522, *Wages and Hours of Labor in Foundries and Machine Shops, 1929* (October, 1930, pp. 153, 25c.).

No. 523, *Wages and Hours in the Manufacture of Airplanes and Aircraft Engines, 1929* (November, 1930, pp. 53, 10c.).

No. 524, *Building Permits in the Principal Cities of the United States in 1929* (October, 1930, pp. 109, 20c.).

No. 529, *Workmen's Compensation Legislation of the Latin American Countries* (December, 1930, pp. 307, 65c.).

The Women's Bureau of the federal Department of Labor has issued: Bulletin No. 78, *A Survey of Laundries and Their Women Workers in 23*

Cities, by E. L. Best and Ethel Erickson (pp. 166, 30c.); No. 80, *Women in Florida Industries* (pp. 115, 20c.); No. 81, *Industrial Accidents to Men and Women,* by E. C. Brown (pp. 48, 15c.); No. 82, *The Employment of Women in the Pineapple Canneries of Hawaii,* by Caroline Manning (pp. 30, 15c.).

The Annual Report of the United States Board of Mediation, 1930 (Washington, pp. 26, 5c.) notes that there were fewer arbitrations of railway disputes during the past year than in any previous year.

The New York State Department of Labor has compiled *Workmen's Compensation Law and Industrial Board Rules with Amendments, Additions and Annotations to November 1, 1930* (Albany, pp. 174). The Department has also issued Special Bulletin No. 167, *Unemployment in Buffalo, November, 1930* (pp. 72).

Public Finance

In Bulletin No. 40, *Long-Term Indebtedness of the State and Its Political Subdivisions, 1928,* issued by the Wisconsin Tax Commission, there is presented for the first time a tabulation of public debt in Wisconsin (pp. 12). Bulletin No. 41 deals with *Receipts and Disbursements of the State and All Its Political Subdivisions for the Fiscal Years Ending on or before December 31, 1924-1929.* Bulletin No. 42 treats of *Municipal Accounting and Auditing.*

Among the annual reports issued in the field of public finance are:

Annual Report of the Commissioner of Banking and Insurance of the State of New Jersey (Trenton, 1930, pp. 171).

Twentieth Annual Report of the Tax Commission of Ohio for the Year Ending December 31, 1929 (Columbus, 1930, pp. 280).

Sixteenth Annual Report of the South Carolina Tax Commission to the Governor and General Assembly, 1930 (Columbia, 1931, pp. 264).

Biennial Report of the Commissioner of Taxes of the State of Vermont for the Term Ending June 30, 1930 (Rutland, 1930, pp. 114).

NOTES

The Executive Committee of the American Economic Association requests that suggestions relating to the program of the next annual meeting should be sent by May 1 to the president, Professor Ernest L. Bogart, University of Illinois, Urbana, Illinois. It is particularly desired that the Program Committee should receive information with regard to new investigations or studies which would be of general interest to the membership of the Association.

The following persons have been chosen members of the Nominating Committee of the American Economic Association for the year 1931: Professor T. S. Adams, Yale University, chairman; Professor Abraham Berglund, University of Virginia; Professor Harry Gunnison Brown, University of Missouri; Professor H. E. Hoagland, Ohio State University; Professor Abbott Payson Usher, Harvard University; Professor C. W. Wright, University of Chicago.

The following names have been added to the membership of the American Economic Association since November 1:

Aitken, J., 407 Earl St., Kingston, Ontario, Canada.
Altman, O. L., 82 Gates Hall, University of Chicago, Chicago, Ill.
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Belden, W. H., Kalamazoo College, Kalamazoo, Mich.
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Blanchard, J. D., Box 3032 University Station, Columbus, Ohio.
Block, L. H., 407 Temple St., New Haven, Conn.
Boatwright, J. W., School of Commerce, Northwestern University, Chicago, Ill.
Bouvier, E., Georgetown University, Washington, D.C.
Bretherton, R., 1717 Massachusetts Ave., N.W., Washington, D.C.
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Nelson, E. C., Women's Bureau, Washington, D.C.
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Orton, M. F., Chief, Bureau of Research and Valuation, Public Service Commission, State Office Bldg., Albany, N.Y.
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Sutton, G. W., School of Commerce, University of Georgia, Athens, Ga.
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Underwood, W. W., Extension Service, Farm Management Demonstration, Lafayette, Ind.
Van Sant, E. R., 125 Buckhout St., State College, Pa.
Vanderlip, F. A., Room 701, 111 Broadway, New York City.
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Wells, H. B., Indiana University, Bloomington, Ind.
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Wood, L. A., Dept. of Economics, University of Oregon, Eugene, Ore.
Wood, W. S., Wakeman, Ohio.
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Yoder, W. O., School of Business Administration, University of Buffalo, Buffalo, N.Y.
Yovitch, Z., University Club, Madison, Wis.
Zahour, R. J., 4445 West 35th St., Cleveland, Ohio.

The fifth conference on the Causey Fund was held at Oberlin College, November 24-25, on the subject "Looking Forward in Industry: What Lies Ahead in Industrial Relations." The speakers were Professor John R. Commons, Messrs. Henry S. Dennison, Sidney Hillman, and Leo Wolman.

An institute program on the prevention of unemployment was held at Tufts College on November 21. Speakers included Dr. Harlow A. Person, Dr. Benjamin M. Squires, Dr. John B. Andrews and Professor Sumner H. Slichter of the Harvard Graduate School of Business Administration, and Mr. George M. Harrison of the Brotherhood of Railway Clerks.

The National Women's Trade Union League of America plans a conference to be held in Greensboro, North Carolina, March 7-8. Among the topics to be discussed are industrial arbitration and trade union agreement for the maintenance of industrial peace.

The Alabama School of Commerce has recently established a Bureau of Business Research under the directorship of Professor H. H. Chapman. A monthly bulletin is to be issued.

The University of Chicago has established a "clinic of sick business" in an effort to ascertain the causes and remedies for bankruptcy. The study of business readjustments is to be conducted in coöperation with the United States Department of Commerce and with the Solicitor General.

The Hart Schaffner and Marx prizes in the contest of 1930 have been awarded as follows: Class A, first prize of $1,000 to Frank A. Southard, Jr., for a study entitled "American Industry in Europe"; second prize of $500 to Alma Herbst for a study entitled "The Negro in the Slaughtering and Meat Packing Industry in Chicago"; honorable mention to Calvin Crumbaker for a study entitled "The Evolution of the National Long and Short Haul Policy." In Class B, first prize of $300 to Dorothy Shapiro for a study entitled "Lines of Best Fit, with Special Reference to the Statistical Determination of Demand Curves"; second prize of $200 to Warner W. Gardner for a study entitled "The Federal Reserve System and the Price Level"; honorable mention to Kenneth Meiklejohn for a study entitled "Legal Logic and Economic Realities, a Study of Business Practices in the Light of Supreme Court Decisions."

The Institut für Weltwirtschaft und Seeverkehr at the University of Kiel announces as the subject for the Rudolf Funke Prize of RM. 18000 and the Rudolf Funke Gold Medal, "The International Inter-Relationship of Economic Fluctuations." The thesis must be submitted not later than December 31, 1932, and should be typewritten (5 copies) in German or in English. The thesis should "trace the development of economic fluctuations with typical examples from the beginning of the nineteenth century to the present day with a view to ascertaining whether the economic fluctuations of various countries coincide or not, in time, intensity and otherwise—and if so, to what extent. In this connection not only the various periods in the development of capitalism, but also the relations existing between different branches of economic life (manufactures, raw materials, agriculture) are to be taken into consideration. An historical-theoretical analysis of demonstrable unilateral or mutual influences is to be combined with this empirical description. At the same time the author is to show the different typical forms in which these fluctuations spread over the world. He is to explain the part played by psychical and material factors during this process (speculation, technical inventions, migrations, foreign trade, movements of capital). The general problems of the theory of economic fluctuations are not to be placed in the foreground; the author, however, should examine to what extent his own particular theory of the international inter-relationship of economic fluctuations agrees with the general theory of economic fluctuations."

The following will act as judges: Professor A. Aftalion, University of Paris; Professor L. Birck, University of Copenhagen; Professor B. Harms, University of Kiel; Professor E. Lederer, University of Heidelberg; Professor Wesley C. Mitchell, Columbia University; Mr. D. H. Robertson, University of Cambridge; Professor J. Schumpeter, University of Bonn; and Professor E. Wagemann, University of Berlin and Deutsches Institut für Konjunkturforschung.

Fuller information may be obtained by addressing Professor B. Harms, Institut für Weltwirtschaft und Seeverkehr, Wirtschafts-Archiv, Düsternbrook 120/122, Kiel, Germany.

The Morris Plan Bankers Association will award $400 to students submitting the best essays on the subject "Consumer Credit." The prizes will be divided as follows: first, $250; second, $100; third, $50. Competition is open to undergraduate students in all departments of colleges or universities and to all graduate students who have not completed more than one year of graduate work. Manuscripts shall not exceed 5,000 words and shall be submitted not later than July 1, 1931, to the Secretary-Treasurer of the Morris Plan Bankers Association, 431 Statler Building, Boston, Massachusetts. Further details may be obtained from the above address.

The Joint Committee on Materials for Research, appointed by the Social Science Research Council and the American Council of Learned Societies for the purpose of surveying America's equipment for research in the social sciences and humanities, has issued Circular No. 1 under date of December, 1930, a report of its activities during the year. The Committee is investigating the collection, organization, preservation, and publication of research material, and plans to work with the American Library Association in allocating tasks of collection to certain libraries in order to avoid needless duplication.

The Social Science Research Council has begun the publication of a series of studies in scope and method of research in various sub-fields of agricultural economics and rural sociology. The first number takes up research in those phases of public finance which relate to agriculture. The numbers to follow relate to agricultural land utilization, agricultural credit and agricultural income. The general project is under the direction of Professor John D. Black of Harvard University, with a sub-committee of specialists to handle each report. These reports are sold at cost of printing and distribution. Only a limited edition is printed until the size of the demand can be determined.

The Institute of International Finance has begun the publication of a quarterly bulletin containing statistical information of general interest on a number of foreign countries. These bulletins are in addition to the regular credit and special studies published by the Institute. The statistics contained in the first issue of this new bulletin are derived from more than forty different articles, bulletins, and reviews (New York, 90 Trinity Place).

The Economic Journal states that the Council of the Royal Economic Society is preparing a definitive edition of the works of David Ricardo, probably in seven volumes, under the editorship of Mr. Piero Sraffa.

Dr. R. A. Fisher, chief statistician of the Rothamsted Agricultural Experimental Station, Harpenden, England, will spend eight weeks in the United States during the coming summer. He will be in residence on the staff at the Iowa State College during the first half of the summer session, June 16-July 24, and later will visit a number of colleges, universities, and experiment stations throughout the country. Dr. Fisher has been successful in solving such problems as the distribution of the various correlation coefficients, including multiple, partial, and intraclass. His recent contributions have been made in the development of a theory of efficient statistics in estimation, and a more adequate treatment of the mathematics of genetics.

In connection with Dr. Fisher's visit the Iowa State College announces a special group of summer session courses covering the theory of statistics and their practical application in biology, economics, psychology, genetics, farm crops, and animal husbandry.

The following notes concerning the Brookings Institution have been received:

E. G. Nourse, director of the Institute of Economics, is giving a course of lectures on agricultural economics for the winter quarter in the University of Chicago.

Lynn R. Edminster has resigned from the Institute of Economics to accept a position with the federal Department of Agriculture.

R. R. Kuczynski has returned from Europe to resume his work at the Institute of Economics on population problems.

Otto Nathan has resigned his fellowship at the Brookings Institution to accept a position as lecturer in New York University on questions relating to international finance.

Miss Carmen Haider has joined the staff of the Institute of Economics to assist Mr. Moulton in his study of Japan's economic and financial situation.

Felix Morley has returned from Geneva to take up work at the Brookings Institution on some topic bearing on international relations.

Lewis Meriam of the staff of the Institute for Government Research of the Brookings Institution is assisting Colonel Wood's committee on unemployment.

Philip G. Wright has retired from the staff of the Institute of Economics to accept a position with the American Council of the Institute of Pacific Relations in making a study of the American tariff and oriental trade.

A report has been issued by the Institute for Government Research of the Brookings Institution on *The Organization and Administration of the State Government of North Carolina.* A similar report on the county government is to follow.

Bulgaria's Economic Position, by Leo Pasvolsky, is a recent publication of the Brookings Institution.

Appointments and Resignations

Dr. Everett Clair Bancroft, associate professor of economics at Colgate University, has been devoting his sabbatical year to studies in public finance.

Dr. T. N. Beckman has returned to his duties in the department of marketing at Ohio State University after a leave of absence during which he acted as consulting expert in wholesaling for the United States Bureau of the Census.

C. A. Campbell, formerly of Vanderbilt University, is instructor in economics at the University of Alabama.

Professor H. J. Davenport will give courses in theory at the University of Chicago during the summer quarter.

Professor Paul H. Douglas of the University of Chicago has been serving as secretary of Governor Pinchot's Commission on Unemployment. In April

he will leave for Europe on a Guggenheim Fellowship to spend nine months studying unemployment and movements of real wages. He will resume his classes at the University of Chicago in January, 1932.

A. B. Gunnarson has left his position as comptroller of Red Owl Stores, Inc., at Minneapolis, and is assistant manager of the Department of Manufacture of the United States Chamber of Commerce, Washington, D.C.

Professor E. W. Kemmerer of Princeton University heads a commission of financial advisers invited to Peru to aid the bankers of that country in forming a reserve bank with governmental support.

Professor Ben W. Lewis of Oberlin College will give courses on transportation and public utilities at the University of Chicago during the summer quarter.

Dr. Marion K. McKay, professor of economics at the University of Pittsburgh, will give courses at Harvard University during the coming summer session.

John R. Mez has resumed his work with the departments of economics and political science at the University of Oregon after a six-months' tour round the world, during which he visited fifteen countries with a view to collecting material on international economic developments.

Dr. Andrew J. Newman, professor of economics at Rhode Island State College, is serving the town of South Kingstown, Rhode Island, as chairman of a Committee on Taxation, which is preparing a study of the whole problem of taxation in that moderate-sized rural town.

Dr. E. G. Nourse of the Institute of Economics has been giving courses in agricultural economics at the University of Chicago during the winter quarter.

Professor Millard Peck has returned to Iowa State College after a six-months' leave of absence during which he was engaged in an agricultural survey for a group of fifteen life insurance companies.

Professor C. A. Phillips of the University of Iowa will give courses on money and banking at the University of Chicago during the summer quarter.

Dr. J. R. Ramser has resigned his position in the department of economics at the University of Illinois in order to accept a membership in the firm of A. C. Baur and Company, Chicago.

Dr. W. M. W. Splawn is now dean of the Graduate School of the American University, Washington, D.C.

Victor E. Vraz, instructor in business organization at Northwestern University, will teach courses in foreign trade at the University of Texas during the second semester of this year.

Professor U. G. Weatherly, head of the department of economics and sociology at Indiana University, has returned from Washington, D.C., to resume his duties during the second semester.

Dr. Robert M. Weidenhammer, assistant professor of business economics at the University of Minnesota, has received a leave of absence from January 1 until October 1 to join the New York office of the Foreman-State Corporation, affiliated with the Foreman-State National Bank of Chicago. He is about to finish a book on a comparison of cartels and trade associations in the United States and Germany, with the editorial help of Professor Myron W. Watkins of New York University.

Professor Ray B. Westerfield of Yale University will give a graduate course in banking and one in marketing during the summer session of 1931 at Ohio State University.

Charles M. Whitlo, formerly of the University of North Dakota, has been appointed assistant in economics at the University of Illinois for the second semester of the present year.